mental health digest

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# cover story

**Changes in the College Classroom**

**The last several years have seen wide-ranging changes on the college campus. Along with expanded mental health programs at many colleges have come other innovations and experimental programs. An example is the "classroom without furniture" at the University of Texas at Austin. Students and teachers alike sit, sprawl, lounge, stretch out, prop themselves on elbows on the two-tiered floor cover of thick green shag carpet or on top of rectangular plywood boxes also covered in heavy carpet. (Picture courtesy of Frank Armstrong, News and Information Service, The University of Texas at Austin)**

# mental health digest

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# Student Mood during a Full Academic Year

THOMAS M. NELSON

A number of investigators have studied shifts in the character and intensity of student affect as a function of time. The data to be reported arise from a highly empirical portion of a more general study aiming to get information about variations in personal states paralleling epidemics of upper respiratory infection commonly occurring in student populations.

Paper and pencil materials, in booklet form, were used throughout. The cover of the booklet requested personal data. The second page presented four columns of 14 adjectives; responses to these word lists were measures of *apprehension, resentment, discouragement,* and *cheer.* Other pages provided a series of performance materials. These materials will be referred to as measures of *voluntary effort.*

Male subjects predominated by a ratio of approximately 3:2. The total number of subjects participating were 1,267. Underclassmen made up 43 per cent of the total and are treated as a subsample, since academic demand is more stereotyped for them.

Data were collected Monday of each class week (31 weeks) at the beginning of the hour. Each class section served only once. Time of day was randomized. The effects of time of day were also investigated directly by periodically collecting afternoon and morning data the same day.

Students were requested to rate each word of the four columns on a scale 0–100. The instructions were to apply a rating of "100" to adjectives "completely descriptive of you as you are at this hour" and "0" to those "completely non-descriptive of you as you are at this hour." No time limits were imposed. After they completed the word rating, students were given instructions for task one. It was emphasized that the investigation concerned change in the level of voluntary effort and did not involve consideration of maximal output. Voluntary effort was measured by the number of total units completed on the 35 paper and pencil tests.

Words were not treated independently on the list. The numerical ratings given each word were totaled for each subject for a given affective dimension and the total taken to denote the intensity of that dimension for that subject. This mode of evaluation afforded the possibility of composite scale and measurement of more general dimensions of mood. Two composite scales were considered: The sum totals of each subject's ratings of words from the *apprehension, resentment,* and *discouragement* lists were treated as indicants of a general characteristic termed *disrelish.* All dimensions taken together provided a measure of mood intensity most lacking in specific quality. This was referred to as *personal involvement.*

It was decided to present average data for *all-classmen* and *underclassmen* groups since this has the advantage of revealing effects of generalized environmental factors. The median was employed as the measure of central tendency and reliabilities were tested using a suitable nonparametric test. Medians for each of the seven personal dimensions were computed for *all-classmen* and the subgroup *underclassmen* on a weekly basis with data pooled over weeks, and a yearly

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basis with data pooled over weeks and quarters.

The study is concerned specifically with effects of academic demand upon mood and the disposition to exertion. Many of the demands upon students are vicarious or only indirectly associated with the classroom. Statistical comparison was made on the basis of data gathered during weeks in which academic demand was clearly manifest. The 1st, 4th, 5th, 6th, and 11th weeks of the quarter are defined as weeks of academic demand for the year in question: 1st week—Period within which recess terminates; 4th week—Period prior to mid-term examinations; 5th week—Week of mid-term examinations; 6th week—Period following mid-term examinations within which grade expectations become based on more realistic considerations, and prior personal habits undergo re-assessment; 11th week—Period within which final examinations begin.

The data provide evidence that shifts of academic demand are accompanied by personal adjustments which may be distinguished qualitatively and intensively. It appears necessary to regard each unit of the academic year as a succession of personal demands in the form of enrollment and selection of courses, registration, class attendance, study, examinations, and grading. The 1st week is marked by heightened mood states which *cheer* dominates. The general affective level drops sharply during the 2nd and 3rd weeks, *resentment* and *discouragement* are on the increase. The 4th, 5th, and 6th weeks are marked by re-heightened moods although the general level is not so high as at the beginning or end of the quarter. After the mid-term period the general level again becomes flat although *discouragement, resentment,* and general *disrelish* continue to increase. The final weeks of the quarter are accompanied by heightened mood states. It is during this period that *resentment, discouragement, apprehension,* and general *disrelish* are at peak levels and *cheer* is near its lowest ebb. During the final weeks students demonstrate the greatest readiness to exert voluntary effort.

Whether mood descriptions should include some measure of readiness to work is not easy to answer. Some studies give evidence for natural variation in readiness for exertion as a function of time, but others indicate, as ours did, a low order of relationship between mood and performance.

A reasonable parallel can be drawn between mood and activation level upon the following considerations: (1) mood states dispose a subject to given evaluations but do not impart direction to the organism in any important way; activation processes do not have a "steering function"; (2) mood is evaluative of characteristics of external demand; activation is distinct from drive state in that it is maintained only by continued adjustment to external demand; (3) mood shifts are not abrupt; activation is not a response to discrete stimulation but partly a result of hormonal sensitization; (4) mood terms describe states enduring for periods of time; activation has a time course unlike "drive" or "emotional" states; (5) mood is recognized by the individual as a weak and transient affect; activation refers to an intensive as contrasted with a qualitative system; (6) the correlation between individual affect and physiological response; and (7) the fact that situational stereotyping of activational patterns occurs. The structure of academic demand is not immutable, and the temporal dimensions of education ought apparently to be carefully reconsidered.

# A Student-Operated Crisis Center

Barry W. McCarthy and Alan L. Berman

The university community is a system of subcultures representative of the larger society. The principles, needs, and demands for mental health services within the larger community are equally applicable to this particular cultural microcosm, but for too long these demands have remained the sole responsibility of understaffed student counseling and health centers, traditionally separate and hidden from the community they service.

Our purpose is to describe and evaluate the American University's attempt to partially meet these needs through the establishment of the student-operated American University Multiple Emergency Service (AUMES). The AUMES was a student-initiated and primarily student-organized campus project designed to meet the on-campus demand for a centralized information directory and referral service and to provide services ancillary to existing organizations and facilities. The primary function of the service was as a telephone "hot line." The entire service functioned under the direction of three undergraduate students, with the intent of fostering responsible student participation. An advisory board of professionals from a variety of disciplines provided guidance and support for the students.

The following guidelines for the service were stipulated: the caller was to be viewed as the client, and his right to the confidentiality of his communication was to be made clear and adhered to; the caller was to be clearly informed that the AUMES was nonprofessionally staffed; socializing with callers, charging fees, and encouraging or facilitating illegal activity were prohibited; at all times two people were to man the center—face-to-face encounters were performed by a minimum of two volunteer staff members; and no recommendations for drug therapy were to be made.

The AUMES provided for an ongoing system for accurate and pertinent record - keeping service - effectiveness evaluations, lists of referral agencies and available consultation services, and professionals from the community to serve as professional back-up in case the problem presented by the caller was beyond the student's capability.

A screening procedure was instituted with the goal of accepting students who showed evidence of emotional stability, personal integrity, and receptivity to learning. Students were subjected to a screening interview which included background information and a stressful role-playing call. Also solicited were volunteers, who went through the same screening procedures.

Prior to the service's opening, core members were subjected to approximately 30 hours of training—a mixture of didactic, observational, and role-modeling sessions. After the intensive training program, the core members, in order to help consolidate their new knowledge, served in turn as aides for training the volunteers. As the AUMES became operative, volunteers were assigned an internship with a core member of four-hour shifts on the telephone.

In addition to this initial training, micro-lab techniques and group feedback sessions were held, with the intent to train as well as to increase in-

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tra-service communication and group morale. Frequent organizational meetings were held; dyadic subgroups were formed and assigned specific areas of responsibility. In training, we placed primary emphasis on the core member's responsibility when on the phone with a caller in presumed distress. Development of listening skills and empathy was our major concern. For more task-oriented calls, trainees were trained in providing specific alternatives to facilitate decision-making for the client.

A four-stage model for training in telephone techniques was emphasized: the initial encounter, assessing the problem, discussing alternatives, and making referrals.

The Center operated as a telephone information, referral, and crisis center at times when the counseling center was not open. It was always staffed by a minimum of two people, at least one of whom was a core member. The university community became aware of the service and the number through articles in the student newspaper, posters, calling cards printed with the phone number and posted on campus telephones, and by word of mouth.

Two systems of professional back-up were tried: a duty-system, which had specific professionals on call for each shift, and a list-rotation system, which had a list of professionals on call who were available at any time. The latter system proved to be much more practical, efficient, and acceptable.

Another critical element in such a service is appropriate referral sources. The central referral agency was the University's counseling center, which had a same-day screening program for all clients. Also, a complete list of referral sources was derived from a local guide to community services, and all referral agencies and their services were checked out and informed of the AUMES either by personal visit or by phone call.

In order to obtain data on the service, an information sheet was filled out on each call. The information required was basic demographic data, a description of the problem presented, and the listener's response. The caller and listener used a first-name basis to insure anonymity and confidentiality, and last names and phone numbers were obtained only if followup was to be done. The typical caller was 21.1 years of age and lived off campus. There was an approximately equal split on the sex of the caller; yet, males more frequently than females were repeat callers. In the majority of calls, the student or volunteer reported a good result from the call. The number of crisis problems presented directly to the counseling center increased markedly after the service began. The association of the counseling center with the emergency service seemed to broaden the range of clientele.

One of the interesting innovations functioning along with the crisis service is the Companion Program. The program uses trained students from the AUMES who function in a variety of roles with clients at the counseling center. This program will be expanded with the possibility of having an Emergency Companion Program. There will also be an attempt to expand the AUMES to do on-campus studies of student problems. Compiling and disseminating this information could be a primary preventive function of the Center. Also proposed is the organization of a consultation service to dorms and other campus groups. A projected major evaluation project for the service will be a rating system to objectify the generally good subjective feelings that the student listener has about the call.

# Abuses of Sensitivity Training on the American Campus

HENRY WINTHROP

The younger generation has been quick to respond to T-Groups ("T" for training) when they are formed on an American campus, not simply because the use of the sense of touch in promoting communication has been given prominence, but because abstract and verbal communications are played down in the T-Group. In turn, group members often talk more *at* each other than *with* each other.

Certainly personal problems, values, and attitudes rather than ideas become the conversation pieces of the campus T-Group. The T-Group promises the young and uninitiated a psychological route by which the interpersonal mistakes of the past may be quickly wiped out or, at least, have their effects diminished considerably. To the student the T-Group often seems to carry almost a guarantee that he will be able to achieve a warmth and depth of relationship with others. The campus T-Group subsequently falls far short of student expectations in terms of what he has heard or read about sensitivity training groups. There are several reasons for this outcome.

The characteristic objectives of sensitivity training have been to get the individual to feel safe enough to drop some of his defenses and facades and relate to others more directly on a feeling basis. Role-playing and defense mechanisms are abandoned. An improvement in self-understanding and in interpersonal relationships is expected to be one of the benefits of the basic encounter, and direct changes in personal attitudes and behavior are expected to follow. Group trust and coherence can be built up by the methods employed in sensitivity training. Above all, sensitivity training helps the individual loosen the abstractions through which the social order imprisons him; thus he can come to see concretely what is happening in every context to which he addresses attention and judgment. In short, sensitivity training will expand all the horizons of consciousness and will eliminate the tyrannies of depersonalization, dehumanization, and bureaucratization that stem from the narrow foci of concerns of the technological society.

The following material was obtained from members of T-Groups throughout the country whom I have known personally or who were well known by those furnishing the description.

Students in campus T-Groups have been largely of the "hippy" variety or undergraduate, anti-Establishment radicals with the following traits: suggestibility, lack of intellectual discipline; concerned with the quest for novel experience, without any concern for a purpose or goal to their seeking; poor judgment with respect to people; and lack of a critical attitude concerning the motivational dynamics of others. Also, far too many of these students exhibit a strong tendency toward superficiality in knowledge and a predilection for taking gossip and assertion at face value.

Many of these students are susceptible to managed events and local propaganda. A number of them seem to be obsessed by the hope that sooner or later they will stumble upon an idea or a movement that will be the door-

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way to all human and cosmic mysteries and, preferably, one which would be neither emotionally nor intellectually taxing. A bloc of these student enthusiasts are intellectually lazy, semantically befuddled, show leanings toward mysticism, and exhibit a marked anti-intellectuality combined with a weak ego-strength. Finally, several reveal an aimlessness in their extracurricular activities which seems to indicate they have not, as yet, found themselves.

In many cases, group facilitators were untrained in psychology, psychiatry, or human relations programs, and apparently unfamiliar with much of the literature on sensitivity training. Apparently the motivation of many of these T-Group leaders who were not psychologists or psychiatrists was the prestige and social spotlight this role conferred. In some cases the facilitators had themselves been members of a basic encounter group elsewhere. Often facilitators lost control of their T-Groups, insofar as control can be said to be present in the sense of a permissive form of guidance.

Occasionally faculty members were found in campus T-Groups. These were faculty membrs who, in some respects, were juvenile in make-up, if not in years. They were often anti-Establishment romantics whose conversation is a passionate logorrhea. The underpinnings of "conversation" by the type of faculty member involved indicated clearly that the speakers were emotionally involved, but gave little indication of much substance—not, at least, in the context of the encounter group. The behavior of some faculty members in T-Groups was no different from that of some of the more unstable students.

In the T-Groups studied, the sessions were characterized overwhelmingly by the negative features of the basic encounter and few, if any, of the positive features of sensitivity training. These negative features are: aimless milling around; reluctance initially to open up; various types of hostile criticism of the facilitator; mutual insults by many pairs of members present; quick antipathies which, as the sessions wore on, were cruelly revealed; unconstructive criticism of the behavior of members in the group or of past behavior they had revealed about themselves; the puncturing of any role-playing proclivities on the part of group members, usually done in so sadistic a fashion as to cause some of the more sensitive female members to cry; pitiless confrontations that were as psychologically homicidal as they could get; exits from the group in high dudgeon and anger; and a number of other similar reactions. Positive results were obtained in some cases but with far less incidence than the negative features mentioned. As for the self-elected group facilitators, they were often a laughing stock to the clientele, who occasionally both showed and declared no respect for them.

These are some cross-sectional glimpses of aspects of sensitivity training among psychologically naive T-Groups that have been organized on the American campus. The fault is not to be laid at the feet of sensitivity training itself. The results are to some extent inherent in the first flush of uncritical enthusiasm which occurs when some campus T-Groups are initially formed. In addition, the novelty of the procedure lends itself to the enthusiasm of the more immature undergraduate as well as to exploitation by faculty amateurs who are insensitive to psychological complexity and indifferent to the requirements of human understanding.

If one seeks to account for the large amount of irrationality that crops up

among students in a campus T-Group atmosphere, one is dealing with an extension into the basic encounter group of a generational phenomenon. Specifically, I refer to a revolt against intellect among the many young people who try to resist morbid aspects and functions of human intelligence; they appeal for man not to intellectualize as a protection from truly feeling the plight of his fellow man.

The restoration of an authentic, religious impulse in the form of self-actualization, personal honesty and morality, and a social altruism is more needed than ever before. The drastic reconstruction of society will have to be based on rational analysis and a knowledge as to how and where we have taken the wrong paths. Unfortunately, however, much that takes place in T-Groups is saturated with the same irrationalities and hatred of thought exhibited by so many dissidents on the fringe of social protest. We find, among both the facilitators and the clientele of many T-Groups, a marked inability to distinguish the meanings of the three basic terms, "anti-rational," "irrational," and "non-rational." Because of the failure to make these distinctions, much of the irrationality in the amateur, campus T-Group is a spillover from the generational protest itself.

**Anti-Rational Thought**

An attitude is anti-rational when it is hostile to reason, logic, scientific method, and common sense as tested by the everyday touchstone of experience. The types of persons who are attracted to offbeat psychologies are often those who are predominantly intuitive and who scorn those approaches to psychology that demand analysis, systematic thought, quantitative approaches, logico-empirical methods and similar intellectually exacting and methodologically intersubjective requirements. These postures of scorn are our modern, sophisticated forms of anti-rationality. There are, at present, some psychotherapists, counselors, psychologists, social psychiatric caseworkers and a number of unorthodox "healers" who espouse marginal views and approaches to therapy without much scientific foundation.

**Irrational Thought**

A line of thought is irrational when the person engaging in it is not necessarily anti-rational but the quality of his thought is illogical, semantically faulty, and lacking humility before facts. Irrationality is evident in the tendency toward oversimplifactions of complex matters and in the toleration of the ambiguous and the contextually vague. It is present when an individual exhibits discontinuity of thought —in the sense that the individual does not know how to stick to a point. The irrational also shows up as lack of self-consciousness about one's presuppositions, a blindness to their weaknesses and methods of inquiry and an insufficient concern with pinpointing proper interpretations of the findings and assertions of modern science and scholarship.

These are the people who mistake both their evaluations and misevaluations for publicly verifiable experience. People who are irrational in another sense still try to talk about ideas intended for aspects of structured reality with a language intended for the non-structured aspects of human experience. Finally, we have the irrationality that is rooted in hostility to thought and which prefers the slogan to analysis, the obscenity to considered judgment, and the substitution of such interjections as "you know!" and "dig that!" for the arduous process of com-

munication. Many undergraduate students are irrational in this respect.

**Non-Rational**

A pattern of behavior is non-rational, in the present context, when its genesis lies in an attempt to open man's being to forces, elements, and processes of his inner nature that have nothing to do with modes of reason, analysis, and scientific inquiry. The wish to expand esthetic sensibility or to appreciate a sense of being in tune with nature by ambling through sylvan retreats, or sailing alone far out at sea, is one way of opening oneself to the non-rational. Another way of approaching the non-rational elements of life is to seek the positive virtues which are the objectives of the authentic basic encounter group.

Finally, there are the many current efforts to expand the horizons of consciousness beyond the strictly cognitive concerns that possess payoff functions in Western society. On the positive side, such expansions of consciousness are those altered states of consciousness (ASC), in which the individual feels there is a qualitative shift in the pattern of his mental functioning and, in addition, perception and awareness provide inner qualities that are quite different from the humdrum, inner life of everyday experience. Those types of consciousness that are subsumable under ASC are now mostly religious and mystic experiences and the psychological experiences that result from devices now being employed for "turning on" people (i.e., the drug-culture and sensitivity training).

The distinctions among the three separate concepts of anti-rationality, irrationality, and non-rationality are extremely germane to the professional degradation that sometimes occurs in the basic encounter group and to the abuses in procedure and the improprieties of outlook that occasionally crop up in such groups. The focus of my attention happens to be sensitivity training groups on the American campus but, I suspect, my remarks will be applicable in substantial measure to many such groups of extramural origin.

If facilitators and clients should come to a T-Group with basically anti-rational attitudes and conduct their sessions irrationally, this is not the equivalent of opening oneself to the non-rational elements of being. And, if during the conflicts and stresses of a T-Group session there should be a not-so-subtle shift from the effort to immerse oneself in the nonrational dimensions of life to the expression of either an anti-rational posture or irrational modes of social intercourse, or both, nothing could be worse.

It is this shift which is a major factor in the dysgenic results of sensitivity training in amateur, campus T-Groups and which seems to be a generational phenomenon. Individuals of all ages are found in sensitivity training groups. I wish to emphasize that the popularity of such groups appears to be greatest with members of the younger generation; therefore, the groups are perhaps more easily abused on the American Campus than in other contexts.

# The Effect of Race and Sex on College Admission

ELAINE WALSTER, T. ANNE CLEARY, and MARGARET M. CLIFFORD

This experiment was designed to test the hypothesis that both race and sex affect a candidate's likelihood of being admitted to college. Mindful that many colleges are actively recruiting competent black scholars, we predicted that a black candidate, male or female, would be preferred to a comparable white candidate. It was predicted that sex would also affect an applicant's chance of admission, with preference given to male candidates. We were also interested in exploring the relationship between six dependent additional variables and patterns of admission. Specifically, we were interested in differences between: large and small schools; public and private institutions; religious and secular schools; small-town colleges and those in metropolitan areas; Southern institutions and those in other regions of the country; and junior colleges and four-year colleges.

A sample of 240 schools was randomly selected. Three levels of applicant ability were included to insure that our applicants would be neither accepted nor rejected by all colleges. The race, sex, and ability levels of the candidates were randomly assigned, and one application was prepared for each of the sample colleges.

In order to generate the materials required for the college applications, we secured the school records of three real high school seniors with different ability levels and with names that did not reveal their sex. The manipulation of the two major independent variables, race and sex, was accomplished with the use of photographs which were attached to every application and also appeared on the Xeroxed copy of the transcript supposedly sent by the high school. The sex code was appropriately changed whenever it appeared.

The distinctions between the three ability levels were determined by students' actual records. The *Low Ability* candidate ranked 268 out of 414, had an ACT composite score of 10, an SAT Verbal score of 404, an SAT Mathematics score of 382, and achievement scores of 451 in English, 442 in American History, and 356 in Mathematics. The *Average Ability* candidate ranked 135 in a class of 414, had an ACT composite score of 21, an SAT Verbal score of 504, an SAT Mathematics score of 482, and achievement scores of 531 in English, 522 in American History, and 436 in Mathematics. The *High Ability* candidate ranked 55 out of 414, had an ACT composite of 25, an SAT Verbal score of 604, an SAT Mathematics score of 582, and achievement scores of 591 in English, 582 in American History, and 526 in Mathematics.

To insure that applications would be as standard as possible, a master form was prepared. Included in this master application was basic information about the student's background, education, interests, essays on his hobbies, and religious experiences. Letters of reference, appropriate for students of any race or sex, and the necessary medical records were prepared. All applications were completed by referring to the master form. In most instances, we were able to plead inconvenience when personal interviews were requested.

The supplementary independent

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variables for post hoc analyses were obtained by letters to the colleges and from reference material. The letter, sent several months after the applications, asked the schools for the total day class enrollment and the number of males and females enrolled for either the spring semester 1967–68 or for fall of 1968–69. College catalogs and guides were used to secure information on the type of school (i.e., religious or secular, public or private) and years of instruction offered. The urban population associated with the location of each school was obtained from 1960 census data.

Because we were especially interested in determining whether Southern schools differed in their pattern of admissions from schools in other regions of the country, we divided the schools into four districts—Western, North Central, North Eastern, and Southern —on the basis of the U.S. Census classification.

The main dependent variable was the acceptance or rejection of the candidate by the institution. The responses of the colleges were scored on a five-point scale: rejection; rejection with the possibility of reconsideration at a later date; qualified acceptance in which a program or course-work adjustment was stipulated; acceptance; and acceptance with encouragement by a personal letter or an offer of unrequested financial aid.

In addition to this major dependent variable, three other measures were collected: the time between the candidate's initial request for application materials and the school's response; the nature of the reply; and the time between the mailing of the application and the school's decision. In the postcard sent to the school requesting application materials, the student indicated both his sex and race. A school, by neglecting to send the application forms, could delay or prevent a student's admission.

Contrary to our expectation, neither the race nor the sex main effect was significant. Indeed, the race effect was not even in the predicted direction: blacks were accepted *less* frequently than were whites. The data provide no support for the notion that American colleges are actively recruiting Negro scholars. The sex effect was in the predicted direction. Males were preferred over females, but this difference was not significant.

A significant result that was not expected was found in the joint test of interactions. At the low ability level males were preferred over females. At the higher ability level, this difference disappeared. Since, in the actual high school populations, there are more students, both male and female, at the lowest of our ability levels than at the higher levels, it is clear that, *overall*, women are discriminated against in college admission. The significant sex-by-ability interaction is in accord with the feminist observation that only a truly exceptional woman can ever hope to transcend sexual stereotypes and to be judged on an objective basis.

The six dependent variables mentioned earlier did not alter the pattern of results secured. The supplementary dependent measures were essentially uncorrelated among themselves or with the acceptance measure. The failure to discover a different pattern of admissions in the South and the non-South was surprising. In view of historical differences between these regions, we had assumed that race and region might strongly interact in determining one's chances of admission. The data indicate that blacks are no more enthusiastically received in non-Southern institutions than they are in Southern ones.

# Family Correlates of Student Political Activism

L. Eugene Thomas

This study was developed from a larger investigation of political socialization, in which the political behavior of children of politically active and ideologically polarized parents (both liberal and conservative) was examined. It was found that a large number of children of these parents had taken part in radical activities—protests, demonstrations, picketing, etc. Because the sample selection began with parents of known characteristics, rather than beginning with activist students, the design of this study makes possible a determination of the incidence of activism among students from families similar to those from which liberal activists have characteristically come. Sampling from parents, thereby being able to hold family socioeconomic status and political participation of parents constant, makes possible an exploration of the family variables most highly associated with the child's participation in political activism.

The sample consisted of 60 white families. Half held liberal political views, and half held conservative views. Local informants were used to ascertain if these people were active in social and political causes, if they were known to hold ideologically polarized political views, and if they had a college-age child. Only those families were used in which the parent was found to compare in political activity with the top 10 percent of adults in a national sample. One parent and a college-age child were interviewed from each family. For the liberal sample, the mother was interviewed in 15 families and the father in the other 15 families; mothers were interviewed in 16 of the conservative families and fathers in 14 families.

The liberal and conservative parent groups were found to be quite similar in age and socioeconomic status. The one demographic characteristic on which the liberal and conservative samples differ significantly is that of religion, with the conservative sample being predominantly Protestant and the liberal sample having Jewish and Protestant members in about the same proportion. The number of male and female students in the sample was almost equal; age ranged from 18 to 24.

For each family the parent was contacted and interviewed first, and subsequently the college-aged child was interviewed. Interviews covered a wide range of questions concerning family child-rearing practices, present family emotional climate, as well as questions concerning political views and participation. Coding scales for each of the variables were devised from appropriate questions on the verbatim interview protocols.

Parent and child protocols were coded for four indexes of family emotional climate: permissiveness, warmth, conflict, and family interaction. The scores reflect overall family relationships, although they were obtained from only two members of the family triad.

*Permissiveness* was the extent to which parents allowed the child to make his own decisions, to establish his own standards, and to regulate his own affairs without parental control. *Conflict* was the extent and intensity of parent-child disagreement in the past 2 years. *Warmth* was measured by two 7-point bipolar scales, using a format similar to that of the semantic

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differential, in which child and parent indicated how each thought the parent had treated the student as a child. The poles for the scales were "warm to him—cold to him," and "with much love—with little love." *Family interaction* was the extent of contact and interaction between parent and child (irrespective of positive or negative affect). Two measures of *family political climate* were derived from the interview protocols. "Parental dedication to causes" was scored from the parent interview alone, while the measure of "parental political tutoring" was based on parent and child interviews.

*Student activism* was based on the extent of participation in protest meetings, picketing, demonstrations, etc. *Conventional political activity* was based on the Woodward-Roper Political Activity Index (PAI) which measures conventional political participation, such as frequency of voting, working for a political candidate, writing letters to elected representatives, etc.

Over half of the children of liberal parents were found to have taken part in radical left-wing causes to a moderate or high degree. Left-wing radicalism included participation in civil rights marches, principally for open occupancy, and peace demonstrations and picketing. None of the children of liberal parents had taken part in right-wing causes. A significantly smaller number of the children of conservative parents had taken part in radical political activities. Only five of the thirty had taken part in conservative causes and protests. None of the children of conservative parents had taken part in New Left activities, although two had worked at one time for moderate civil rights causes. Children of both liberal and conservative parents were quite high in conventional political participation (working for candidates, writing letters to elected representatives, etc.) as measured by the PAI. An analysis of student activism and political participation for the liberal and conservative students indicates no significant sex differences within the groups on these variables.

Liberal and conservative families differed significantly on both of the measures of political climate, with liberal parents more dedicated to causes and more active in tutoring their children politically. Of the four family emotional climate variables, conservative and liberal groups differed significantly only on permissiveness; liberal families scored higher in permissiveness than did conservative families. Parents of girls were significantly less permissive than parents of boys in the conservative sample.

In order to determine the relative importance of the family variables in predicting student activism, a multivariate regression analysis was performed. A preliminary analysis indicated a significant interaction by sex of student, making necessary separate analysis of male and female students within the liberal and conservative samples. For the liberal group, for both males and females, parental dedication to causes is highly associated with student activism. This variable accounts for almost three-quarters of all the variance with the six family variables together predict.

This study replicates the findings of other researchers that liberal student activists tend to come from families characterized by affluence, fathers with high status occupations, parents of high educational attainment, parents who hold liberal political beliefs, parents who are themselves politically active, and predominantly Jewish family backgrounds. In analyzing the

association between student activism and the six family variables for the liberal sample, two factors stand out: the high association between activism and parental cause dedication, and that permissiveness accounts for a significant amount of the variance for female students but not for the male students. The reason may be that parental cause dedication is important in predisposing children of liberal parents to student activism, but for girls, who are more susceptible to oversocialization, the further requirement is that parents encourage autonomy in decision making.

There is little evidence in this study to suggest that liberal activists are rebelling against their parents, or that parental permissiveness is the main "cause" of student unrest. On the contrary, liberal activists appear to be carrying on a family tradition of social and political concern.

The family correlates of student activism for the conservative sample indicate a different pattern of relationships than was found for the liberal sample. The lower level of student activism by children of conservative parents may be due, in large part, to the negative sanctions given such behavior by their parents. This is implied by the lower level of activism by conservative students in comparison to the liberal sample, as well as indications that male conservative activists tend to come from families low in family interaction and warmth. It cannot be determined from the present data whether the low level of family interaction and warmth made the male students less subject to parents' negative sanctions against activism, or if participation in radical causes led to the strained parent-child relations.

The findings suggest that when parents are highly politicized and ideologically polarized there is a strong family influence on the child's degree of political participation and his choice of forms of political behavior. The high level of student activism for the children of liberal parents in comparison with that for children of conservative parents, along with the high participation of both groups of children in conventional political activities, provide a strong presumptive argument for the importance of their families in predisposing them to such behavior. Support is given this argument by the finding that none of the children had changed ideological positions from that of their parents. Overall, participation in radical political causes is strongly influenced by the political climate of the family, with the family emotional climate being of secondary, though not negligible importance.

Extreme caution must be exercised in making generalizations about the family "causes" of student activism. Family political climate is as important as, if not more important than, the family emotional climate in predisposing children to political activism, and studies which focus on only one set of variables run the risk of oversimplifying the problem. It is also clear that studies of the family correlates of student activism must distinguish between liberal and conservative activists, as well as between male and female students within each group, if they are to avoid confusion of the family dynamics at work.

# Ecological Aspects of Group Behavior in Social Isolation

IRWIN ALTMAN, DALMAS A. TAYLOR, and LADD WHEELER

Research on interpersonal functioning is gradually moving toward consideration of the physical environment as an essential aspect of social situations. One theme of this approach is that the environment can be viewed from two perspectives: the environment as a determinant of social behavior, in the sense of independent variable; and the environment as being "acted upon," in the sense of a behavioral or dependent event. Another theme of this ecological approach is that group functioning is best viewed from a multiple-response mode perspective. The group is a total system, exhibits several levels of behavior in adapting to its environment, as do the members in their attempt to deal with one another. This study was conducted within the spirit of this approach, with a particular emphasis on the mutual interaction of groups and their physical environment over time. Our interests encompassed environmental features including variations in opportunity for privacy, degree of contact with the outside world, and expectations regarding length of the isolation period.

We examined a range of environmentally oriented behaviors, including social activities; measures of territoriality for beds, chairs, and sides of the room; and use of beds by team members (time in bed and frequency of on-off bed behavior). To broaden the perspective further, performance data were collected on team and individual tasks, along with pre-post measures of protein-bound iodine (PBI) in the blood (a physiological indicator of stress). Thus, the study took a broad ecological approach by viewing the environment both as determinant and as a source of behavior and also by viewing group processes at several levels of behavioral functioning.

Pairs of men were confined for 8 days in small rooms without recreation materials of any kind, lived on a survival-ration diet, and had about 2½ hours of work per day on individual and team tasks. Observation was conducted by closed-circuit TV and by microphones. Team members were roughly equated on several demographic variables and were strangers prior to isolation. A $2 \times 2 \times 2$ factorial design with independent variables of privacy, stimulation, and mission length was employed.

*Privacy*—Subjects lived either in separate rooms (privacy condition) or in a single room together (no-privacy condition). Private rooms were connected by a soundproof door through which subjects could pass freely, so that contact with one another was not difficult or restricted.

*Stimulation*—To examine the effect of lessened contact with the outside world, nonstimulated subjects rarely heard human voices from the outside, and then only on a tape-recorded team task. In a stimulation condition, instructions were given over an intercom; subjects were asked periodically to report room temperature and food consumption; and they heard short broadcasts of music, a documentary record, and a question-and-answer program.

*Mission length and uncertainty*—Following 2 days of training and testing, and immediately after isolation began, half the groups were told that

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the mission would last 4 days and the other groups were informed that the mission would last 20 days, with the additional instruction that the mission might be extended "because of operational requirements." Outside noises made it possible for subjects to keep track of days. After 4 days had passed, they were left in the rooms and were uncertain about the remaining length of isolation. This manipulation was not concerned solely with the effects of uncertainty. During the first 4 days, subjects in both 4- and 20-day conditions were equally certain of mission length, and it was expected that they might pace themselves differently in the two conditions.

Several behavioral measures were obtained on a systematic sampling basis or on a "real time" continuously monitored basis. Data were collected in several ways, including video observation, antomatic data recording, and performance on various tasks. Measures consisted of territorial behavior for beds, chairs, and sides of the table in the room; social activity involving solitary or together activities; time spent in bed; frequency of on-off bed acts; performance on a team task and on a self-paced continuous individual monitoring task; and a physiological measure of stress.

**Results**

Social activity differences were associated with certain conditions of privacy, and reflected differential responses by those who successfully completed the social isolation versus those who were unable to do so. While group members gradually withdrew from another over time, heightened early day interaction was present for those who eventually adapted to the situation and absent for those who subsequently aborted. This pattern was especially associated with a condition of privacy.

Aborters and completers showed different patterns of territorial behavior. Aborters exhibited early low and later high territoriality, particularly in private, 20-day mission conditions. These data parallel those obtained on social activity, subjective stress, and anxiety measures, suggesting a generally consistent behavioral pattern.

Two behaviors involving use of beds were examined — frequency with which men got *on and off* beds, which may reflect restlessness, and amount of *time spent in bed,* which may reflect withdrawal behavior. Only restlessness, or on-off bed behavior, produced reliable differences, especially for comparisons among 4- and 20-day aborters and completers. These data show a rise in restlessness by 4-day aborters as they approached the expected mission termination, and then beyond to the time they aborted. Four-day completers did not reach the same level and gradually settled down after the 4th and 5th days. No such differences occured for the 20-day groups.

There were no other statistically consistent results for restlessness or withdrawal measures, but there were several trends which suggested the complementary fit of these with the other data. For example, however grouped according to experimental conditions, aborters were generally higher on *either* or *both* restlessness and withdrawal, and *never* lower than completers. Thus, aborters were very highly oriented toward the bed. The 4-day aborter groups seemed to react to announcement of the short mission with relief and hyperactivity. The 20-day aborters appeared to be overwhelmed by announcement of the long mission, being very quiet and unresponsive. Our impression from these data and from general observations was that

they tried to sleep away the situation and spent a great deal of time in bed.

These data suggest an absence of regulated behavior by aborters compared with completers. Our impression of completer groups was that they "paced" themselves and attempted to cope with the situation by leading a regulated and orderly life.

At the level of men attuning themselves to one another, we computed intragroup rank-order correlations per day on restlessness and on withdrawal. A high correlation indicates similarity between members on either restlessness or withdrawal, perhaps suggesting that they attuned their activities to one another; a negative correlation suggests divergent activity patterns. Completer groups had higher average correlations than aborters for both restlessness and withdrawal behaviors. Thus, completers seemed to have attuned themselves to one another behaviorally more than aborters.

Men performed individual and team monitoring tasks during the period of isolation. The data complement on-off bed behavior, with major differences between 4- and 20-day aborters and completers. While aborters generally monitored more than completers, this was especially true for 4-day aborters. Thus 4-day aborters were not only more restless in terms of on-off bed behavior, but in so doing they often went to their monitor console. The monitoring task, then, may also reflect restlessness. While 20-day aborters were initially higher on monitoring behavior, they showed a rapid decline, consistent with their time-in-bed data, indicating heightened withdrawal. Both 4- and 20-day completer groups were lower on monitoring behavior than abort groups and were not statistically different from one another.

Prior to and following isolation, blood samples were taken and analyzed for PBI, a possible measure of stress reaction. Aborters were initially much lower in PBI than eventual completers and increased sharply subsequent to aborting, to a level slightly higher than completers. This initially low physiological stress reaction may have been related to aborters' initial expectancies about the isolation situation.

In several facets of behavior prior to, during, and following isolation, members of abort groups showed a different syndrome of behavior than completers. Holtzman ink-blot data, MMPI and other personality data, subjective stress and anxiety reactions, and a physiological indicator of stress (PBI) were obtained during 2 days of orientation. The profile suggests that aborters misread the demands of the situation and did not undertake effective group formation processes to cope with the situation. All these results point to aborters as underestimating the difficulty of the situation and perhaps perceiving it to be no problem for a "he-man" adventurous type. Our general interpretation was that they did not adapt to or cope with the situation during the early days of isolation in a way that would lead to success.

Inattention to early group formation is also reflected in aborters' use of the physical environment. On all three measures of territorial behavior —beds, chairs, and sides of a table— members of abort groups were lower than completers early in isolation. Thus, they not only failed to interact socially, but also did not establish interpersonal identities in terms of use of the environment. One major function of territorial behavior is to set boundaries among group members, to facilitate and establish bases of interaction, and to smooth out functioning in a way analogous to social norms and

conventions. Eventually unsuccessful groups omitted going about the business of group formation and group organization during the early days of their experience, which may have derived partly from their early misreading of situational demands or their denial of the situation and its difficulty.

This pattern is also reflected in use of beds throughout the experience. While not always statistically reliable, the results showed that aborters tended to be more bed-oriented than completers. Furthermore, throughout the isolation period, data on bed activity suggests a lack of interpersonal synchrony or pacing by aborters. Completer groups showed high intradyad correlations between time spent in bed and restlessness, whereas aborter groups showed negative or zero correlations. Therefore, restlessness or withdrawal of one man was not similar to that of the other man in aborter groups, compared with the completers. Thus, there is an overall profile of successful completer groups being organized and forming a group, with members attuning themselves to one another in a variety of ways. The territoriality and social activity data and, to some extent, the bed behavior results suggest this difference to have evidenced itself early; the PBI and stress data indicate individual precursors in the preisolation situation.

As days progressed, aborters began to show heightened stress, anxiety, nervousness, and hyperactivity, perhaps as an overreaction to their initial lack of concern. Their feelings of anxiety were indirectly confirmed at physiological levels by posttest PBI scores. Coupled with this heightened anxiety, some aborters, especially in 4-day conditions, showed a high degree of arousal and energy discharge. Others, especially in 20-day conditions, showed increased amounts of withdrawal or time spent in bed. Aborters also began to establish territories at higher levels than completers in later days. These data suggest either a belated attempt at group formation processes and/or a panic reaction which resulted in high energy expenditure and heightened social activity. The completers seemed to settle down to a lower level of activity with a paced and ordered existence. Their levels of stress and anxiety increased but then stabilized; restlessness and withdrawal dropped or remained stable; social activity declined; territorial behavior was less evident, and they gave all appearances of "settling in" to a quiet existence. They seemed to have made an adequate adjustment to isolation.

The overall profile was slightly different for 4- and 20-day aborters, but not for completers in these conditions. Twenty-day aborters seemed to have internalized their difficulties with the situation and were passive and quiet, whereas 4-day aborters were more energetic and hyperactive. These differences centered around stress and anxiety, bed orientation, and territorial behavior, and were also reflected in our qualitative impressions of these groups as they first learned the length of their mission (immediately after isolation began). Lower initial social activity characterized all aborters, but was especially evident for 20-day aborters. They acted in an especially debilitated, internalizing fashion in several different areas. Many of the 20-day abort groups gave the impression of trying to sleep the situation away or make it go away by doing nothing.

The 4-day aborters were somewhat different, and can be characterized initially as optimistic, frenetic, and hyperactive—almost as if they were on a lark. The overall picture is one of

great blustering and movement, but not initially of a group-oriented nature. There were no differences between 4- and 20-day completers, however; they both exhibited the general profile of successful groups described previously.

The general behavior pattern can be qualified in much the same way for privacy aborters as it was for 20-day aborters. That is, those who lived in private rooms showed early lack of group formation processes. The data indicate that absence of territorial behavior was most evident in the privacy, 20-day groups, as was a high level of subjective stress and anxiety. These data suggest the interplay of environmental design and mission expectancy conditions on group adaptation to social environments. Where members had less ready access to one another (privacy) and where their expectations were of a long term nature, those who eventually aborted did least to adapt to their interpersonal and environmental circumstances.

The data of this study lead us to argue for an "ecological orientation" to understanding social processes, which has several themes. First, interpersonal exchange is multichannel, with communication occurring at several levels of behavior. People not only use verbal channels but also interact via self-markers and environmental prop behaviors. Self-markers include non-verbal bodily behaviors such as smiling, eye contact, head nodding, postures, and gestures. Environmental prop behaviors encompass use of objects, areas, and aspects of the physical environment, including physical distance from others. These levels of functioning are accompanied by various internal cognitive/motivational processes and physiological events.

Second, these levels of behavior operate as a "system," in a unified and holistic way through time and at any point in time. Verbal, nonverbal, and environmental prop behavior fit together as a system of interrelated events, with properties of substitutability, compensatory functioning, equivalency, and others often attributed to man-machine and hardware systems. The ideal is to study all levels of functioning *simultaneously,* at a given point in time and through time, rather than to focus on only a single behavioral "slice." By working with multiple behaviors within or across channels, *behavior patterns* can be identified, and a more holistic understanding can be achieved of the functioning of "people" and "groups" as complex entities.

A third facet is recognition of the two-way and mutual relationship between man (or men) and the physical environment. On the one hand, the properties of the physical environment —privacy, stimulation and expectations about length of stay in isolation —acted upon groups to affect their behavior at several levels of functioning. On the other hand, the study also demonstrates how groups acted upon the environment as they responded to and coped with the situation.

Finally, the data of this study suggest an approach to interpersonal functioning involving a concept of "time-linked synchrony" as a determinant of effective group adaptation. This means that the ability of a group to cope with a situation, including member adaptation to one another, is a time-bound process, perhaps analogous to the notion of imprinting, and involves interpersonal synchronization in many areas of living.

# Phantom Sensations of Internal Organs

T. L. Dorpat

Previous studies of phantom sensations have emphasized their occurrence following removal of peripheral body parts or following the denervation of exterior parts of the body. This paper presents clinical evidence that phantom phenomena may also appear after the interruption of afferent input from internal organs.

*Phantom uterine contraction pain sensations*—Mrs. A., a 38-year-old married mother of four children, had a total hysterectomy. She was in psychotherapy for a psychoneurotic depressive reaction for 3 years before the surgery, and for 1 year afterward; never did she show evidence of psychosis or organic brain disease. On the first, second, and third postoperative days, she had recurrent pains which she described as undistinguishable from menstrual cramps or labor pains. These "cramps" had approximately the same duration, intensity, and frequency as menstrual cramps and labor pains she had previously experienced. Psychotherapy interviews after surgery did not reveal any relation between onset of pains and anxiety or other disturbing affects; the phantom sensations disappeared during the third postoperative day.

Discussions with several gynecologists revealed that many women following a hysterectomy complain of having pains subjectively similar to menstrual cramps or labor pains. Such rhythmic pains are classified as *phantom* uterine contraction pains, because they appeared after the removal of the uterus. This classification rests on the assumption that rhythmic pains of this kind are normally caused only by uterine contractions. It is highly unlikely that the rhythmic pains which appear after a hysterectomy could have their origin in pelvic structures other than the uterus.

*Phantom stomach sensations*—In a study of peptic ulcer patients treated by vagotomy, one of the surgical sequelae was a syndrome characterized by persistent ulcer symptoms in the presence of roentgenologic evidence of healing of the lesion and despite denervation of stomach sensory pathways. Other reported cases show typical ulcer pain without X-ray or gastroscopic evidence of ulcers and the persistence of ulcer pain after subtotal gastrectomy and removal of the ulcer.

Hunger sensations have been reported to occur after complete gastrectomy, and one patient continued to have periodic hunger sensations after a total gastrectomy in which the stomach and part of the duodenum were removed and both vagi were sectioned. The patient was tested for evidence of hunger contractions; but evidence was minimal. It was concluded that the hunger sensations were not arising from intestinal activity.

The hypothesis that hunger sensations in a gastroectomized patient were phantom sensations rests on the assumption that local stomach contractions are the adequate peripheral stimuli for the formation of hunger sensations. Some researchers believe that stomach contractions are the sensory basis for hunger sensations, but others have questioned the legitimacy of identifying hunger sensations with stomach contractions.

*Phantom orgasm*—In a study of men and women who had complete

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transection of the spinal cord, it was found that subjects experienced vivid orgasm imagery and sensations during erotic dreams. These experiences did not include genital erection or ejaculation, but the emotional and sensory component of the orgasm was subjectively indistinguishable from orgasms which were experienced prior to cord transection.

*Phantom bladder and rectum sensations*—A study of patients with spinal cord injuries showed that some had phantom sensations of internal as well as external bodily structures; yet afferent nerve connections to the internal organs involved had been severed. Some patients felt distension of the rectum although the viscus was empty; one patient had a continuous sensation of defecation. Another had a sensation of tightness in the rectum, and one reported phantom sphincter movements. Phantom bladder sensations were present in seven patients, and consisted of sensations of distension or micturition. In a study of 50 consecutive patients having completed rectal excision, phantom rectal sensations were reported by 34. Common symptoms were sensations of flatus or feces localized in the area where their rectum had been; the sensations were associated with the desire to pass feces or flatus naturally.

**Discussion**

Patients who have had an interruption of sensory input from internal organs describe having sensations, whereas patients who have phantoms of external organs describe the feeling of having the actual organ. Phantom phenomena following interruption of afferent supply from external organs, e.g., the extremities, nose, breast, may be analyzed in terms of organ *structure,* and phantom phenomena involving internal organs may be analyzed in terms of organ *function.* The sensations described by subjects with the latter phenomena are the sensations ordinarily associated with the biological functions of the organ.

An explanation for the difference between internal and external phantom phenomena has been advanced: Internal organs do not form visual, surface or postural engrams; they are not accessible to examination by the other senses, so they are not recognized as organ entities in the body-schema.

Only internal organs which have sensory innervation can produce phantom phenomena. There are no reports of phantom sensations of such organs as the liver, kidney or spleen, nor would one anticipate that removal of such organs would result in phantom experiences. Phantom phenomena involve only those parts or functions of the body which have a mental representation formed out of the memory traces of sensory experience.

Observations made in this paper and a review of the literature show that phantom phenomena involving internal organs do occur. Therefore, breakdown of the body image *boundary* is not a necessary factor in formation of phantom phenomena. A wide variety of stimuli acting either peripherally or centrally are capable of initiating phantom phenomena. Such stimuli are not a *necessary* condition for phantom formation because phantom phenomena can appear in the absence of any of the stimuli. The common factor present in reports of phantom phenomena is the interruption of afferent input from some part of the body to the brain. The term "interruption" means either a reduction of sensory input and/or a loss of the usual pattern of sensory input. Evidence supports the hypothesis that interruption

of sensory input is a necessary condition for the formation of phantom phenomena, and the interruption need not be a total loss of sensory input for some areas.

These conclusions are congruent with studies on sensory deprivation, where numerous reports indicate that either the loss of sensory input or the depatterning of sensory input leads to hallucinations. Hallucinatory experiences such as phantom phenomena may follow the interruption of sensory input from any part of the body that has a mental representation.

Most writers on phantom phenomena believe them to be hallucinatory in nature. The hallucinatory experiences of psychotics differ from the experience of those who have phantom phenomena in that the latter do not have a loss of their reality-testing function. The phantom part or phantom sensation is *felt* as absolute reality, although the subject knows the percept does not come from an actual organ.

A variety of external stimuli can initiate phantom experiences. For example, stimulation of nerve endings in the amputated stump may lead to experiencing the phantom limb. The phantom uterine contraction pains described above are probably triggered by irritative stimuli at the operative site. These effects may be partially explained by the "conceptual intersensory confusion" theory. That is, the hallucinatory experience may be accounted for by a reduction in the conceptual boundaries between different sensory modes leading to the subject's interpreting a sensory message from one mode in terms of another mode.

These intersensory boundaries, I propose, depend upon effective sensory input. Assuming that the perceptual apparatus requires intact sensory functioning for matching and comparing input for identification, significance and meaning, when the sensory input from one mode is interrupted, the perceptual apparatus cannot match and check the input from another mode with input from the interrupted sensory channel. Interruption of sensory input from one mode would then lead to loss of the conceptual intersensory boundary and facilitate formation of hallucinations.

In my view, phantom hallucinations have a different etiology than do the hallucinations of psychotic and hysteric patients. A new theory of hallucination phenomena is emerging from studies of dreaming, sensory deprivation and phantoms. In contrast to Freud's *psychological* wish-fulfillment theory, this still incomplete theory is a *biological* theory which deals with innate needs of the organism for sensory stimuli. When applied to hallucinatory phenomena this biological or sensory need theory is not incompatible or conflictual with Freuds' psychological wish-fulfillment theory. The biological theory is broader and more inclusive.

How do we relate this theory about needs for sensory stimuli with our conclusion that interruption of sensory input is a necessary condition for phantom hallucinations? Neurophysiological studies are consistent with a hypothesis that the interruption of sensory input causes the central nervous system to initiate its own sensory discharge, experienced as a hallucination. It has been demonstrated that neural tissues can emit rhythmical pulses without afferent stimulation, and that deafferentiation promotes high-amplitude pulses. In other words, lack of sensory input leads to an increase in the discharge of central sensory centers.

# Sudden and Rapid Death during Psychological Stress: Folklore or Folk Wisdom?

George L. Engel

Few folklore notions have enjoyed as widespread and persistent popularity as those that ascribe sudden death to emotional shock. The belief that intense emotional distress may induce sudden death persists unabated in the mind of the average man. How is the persistence of such an idea to be explained? Is it an example of empirical folk wisdom, as was the case with the claims for the efficacy of lime juice for scurvy?

If psychic stress is a factor potentially contributing to a lethal outcome in a vulnerable population, then identification of the population at risk, elucidation of the psychic determinants, and understanding of the mediating pathophysiologic mechanisms offer the promise that timely pharmacologic or psychotherapeutic intervention may be lifesaving. But before the mechanisms mediating such psychophysiological accidents can be studied, it is first necessary to identify and classify the kinds of life circumstances and psychological reactions with which sudden death is alleged to be associated and to establish the prevalence of each association. The impossibility of accomplishing this in a reasonable time prompted us to turn first to a more readily available population whose deaths were already considered to be related to disrupting life events —those reported from time to time in the daily press. Over a 6-year period we collected 170 such items. Only reports with clear reference to a precipitating life situation were used, and all instances in which suicide was even a remotely possible explanation were excluded. In 16 instances we received additional information from witnesses, attending physicians, the medical examiner, or the hospital.

The total of 170 examples include 99 men, 64 women, and 7 persons whose gender was not specified. As a group the men were younger than the women; the peak period for men was 45 to 55 years old and for women, 70 to 75 years. Women were more often reported as dying in relationship to a loss and men more often in response to danger. The life settings in which death was reported to have occurred could be divided into eight major categories:

*Sudden death immediately upon the impact of the collapse and death of a close person*—The impact of the collapse and death of a close person accounted for 36 deaths. There was no age differential between the sexes. Some survivors are reported to have collapsed after exclaiming that they could not go on without the deceased; others were in some phase of frantic activity, mouth-to-mouth resuscitation, trying to get help, or on a quick dash to the hospital. Ten of the persons whose demise precipitated the sudden death were described as having been ill for some time before their death, thereby contributing an element of more sustained concern or apprehension as well. Sometimes the death was in response to the loss of valued possessions. Sufficient information is available to document the cause of the death as cardiac in seven instances and as cerebral hemorrhage in one.

*Sudden death during acute grief*—

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Thirty-five people died within a period of hours to up to 16 days after the death of a close person. The commonest loss was the death of the spouse, but sometimes symbolic relationships were involved. Four of the deaths in this category were documented to be cardiac in origin, and 12 are presumed to be cardiac, two being persons known to have heart disease. Eight people were noted to have been ill for some time before the loss that immediately preceded their own death.

*Sudden death during threat of loss of close persons*—Sixteen people died during times when they were concerned about the illness or injury of close persons. In 11 of the 16 people in this category the threat of loss was abrupt and dramatic. The less dramatic cases involved people who had been burdened with prolonged and serious illness of family members. Most were ascribed to "heart attacks"; only one is documented with certainty.

*Sudden death during a period of mourning or on the anniversary of a death*—Five cases connected with mourning or an anniversary were encountered, four men and one woman.

*Sudden death during loss of status or self-esteem*—Ten people died in relationship to loss of self-esteem or status. Six are known and three are presumed to have had coronary heart disease before their deaths.

*Sudden death in a setting of personal danger or threat of injury, real or symbolic*—There were 46 deaths in a setting of personal danger or threat of injury. Referred to as "scared to death," the types of situations reported included natural and man-made disasters, such as earthquakes, storms, shipwrecks, explosions, fires, and riots. Some of the victims were merely spectators while others were in the midst of the action or seeking refuge. Although fear was empathized or implied in most of these accounts, deaths were ascribed to viewing gory scenes on television, personally directed dangers or threats (i.e., being threatened by hoodlums or fighting fires), questioning in courtrooms, and having an argument. Three deaths were definitely owing to heart disease and four to intracranial hemorrhages, two subarachnoid and two intracerebral. Twenty-eight deaths were ascribed to heart attacks without corroborating evidence, although four persons were known to be under treatment for heart ailments at the time of death.

*Sudden death after the danger is over*—Eleven people were reported to have died soon after a dangerous situation was over. Three deaths proved to be related to heart disease; seven were implied to have such origin, one in a man known to be under treatment for heart disease.

*Sudden death at time of triumph, success, or "happy ending"*—There were eight men and two women in the category of death at times of triumph, success or "happy ending." Two men and two women died during reunions after long separations. Three men died at the peak of triumph.

The immediate question concerns the reliability of such news items, the reporting of which is determined by their dramatic quality or anticipated reader interest. Most of the diagnostic explanations offered can be discounted, except for those few instances where necropsy findings are reported or where this investigator obtained the information directly from a reliable professional source. In respect to reported life settings a considerably higher level of confidence seems justified. The distribution of significant life events noted among the first 100 items was not significantly altered

by the addition of 70 more. The overall distribution is essentially correct. The kinds of life events correspond closely with those that we have already noted to precede illness in general. The 16 instances in which we were able to obtain independent data yielded elaboration but no fundamental contradiction of the basic information reported in the press. There is a consistency about the kinds of circumstances reported.

When the data are examined, certain characteristics of the lethal life situations seem to emerge. For the most part they involve events that are impossible for the victim to ignore; the individual is experiencing or is threatened with overwhelming excitation. Such situations are commonly marked by intense emotions of one sort or another. The person no longer has, or no longer believes that he has, mastery or control over the situation or even over himself; or else he fears that he will lose such control as he may have. The responses range from struggling to cope with what is experienced as an overwhelming situation all the way to giving up completely, even to the point of accepting death with equanimity.

To test such an assumption, knowledge of the victim's mental status before the fatal event is necessary. Fortunately there are a few accounts in the literature of patients who were undergoing psychotherapy or were being interviewed at the time of their death. In general such reports support the thesis. They also indicate that the most consistent and pervasive are the giving-up affects, helplessness or hopelessness.

One situation preceding sudden death that seems to be in contradiction to this formulation is associated with joy and triumph. Yet some involve sudden intense excitement, whereas others are preceded by longer or shorter periods of anxious and often painful waiting and anticipation. These circumstances are also conducive to the reawakening of disturbing memories and fantasies of past losses and threats and, hence, may evoke giving-up feelings. Other cases involve long-sought goals being achieved at last, after which the person feels letdown and gives up.

We can only speculate about the mechanisms of death in these cases. Effective cardiac arrest is probably responsible for the death of those who collapse and die within minutes, as was the case with most of the patients in this series. Although most patients fall in the age groups in which sudden death from coronary disease is commonest, other diseases known to be lethal also occurred, and no doubt some patients would have been found on necropsy to be free of any demonstrable disease, cardiac or otherwise.

Psychologically, it seems likely that conditions conducive to profound neurogenic cardiovascular influences existed in these people at the time of death. Some of the lethal influences may involve rapid shifts between sympathetic and parasympathetic cardiovascular effects; that is, when uncertainty, both in a psychological and physiological sense, is prominent.

The dramatic circumstances preceding sudden death discussed here cannot be construed as evidence for a cause-effect relationship. But when the cases are analyzed for underlying shared characteristics, a unifying hypothesis emerges that is congruent with other clinical data and with accepted physiological principles. The hypothesis is testable by experiment as well as clinical means.

# Drug Perception and the Student-Teacher Gap

STANLEY H. SCHUMAN

In the national effort to abate the current drug epidemic among youngsters, drug education materials including films have an essential role. Unfortunately many of these films have become so stereotyped that they fail to communicate with the intended audience. It may be that showing the grim facts of drug use and abuse is not sufficient for successful learning, no matter how dramatic or authoritative the presentation. A different approach might emphasize the roots of drug behavior rather than the consequences: the stresses, motivations, or inclinations which might lead a youngster to experiment with drugs or to escalate drug usage. Such a supplement approach is being tried at the University of Michigan with a series of innovative films entitled "Trigger Films for Health" aimed at opening classroom discussion among secondary school students.

The scene is set realistically and has the average viewer anticipating the outcome. Abruptly the film ends, deliberately without conclusion, to trigger the audience to project their own feelings, expectations, and experiences into spontaneous and shared discussion. From the growing clinical and education literature, three of the many aspects of drug-seeking behavior by adolescents were selected as likely film themes: rebellion against authority, especially in the home; peer pressures to gain status or conformity; feelings of loneliness, despair, or boredom.

The first of three Trigger films, titled "Linda," is one of a mother-daughter conflict over playing the radio too loud. These features of the film are intended to puzzle viewers: Why does Linda seem to ignore her mother? Why does the music continue after the radio is removed by the mother? Why is Linda's face flushed? The film is intended to provide the following ingredients for discussion: What preceded the incident? What happens next? The generation gap—conflict and communication in the home. Drugs, the varieties, parental ignorance about them, rebellion, and defiance.

The film was shown to seventh, eighth, ninth, and tenth graders. Audiences were limited to 25 students at a time to permit effective viewing and discussion. Students were asked not to discuss the film until they had completed and turned in their unsigned questionnaires. An open discussion period followed for free exchange of perceptions and reactions; written comments on the discussion were also solicited and collected on another standard form. For uninhibited student response teachers were requested to leave the room during the student showing and discussion. A separate showing after school for interested teachers and principals was arranged. The same sequence of showing, obtaining private written response, and open discussion was followed. The faculty discussed the film for 45 minutes with enthusiasm, providing insights concerning the interpersonal conflicts and communication problems, discussing the relevance to current home and school adjustments, but without a single mention of drugs in the filmed episode. This was in contrast to the preceding five student ses-

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sions; with the first 10 minutes of discussion, the students invariably suggested drug behavior, identified telltale signs, speculated on types of drugs depicted, and endorsed the realism of the filmed episode.

The author was puzzled by the faculty response, which was confirmed by the lack of drug-mention in the confidential written questionnaires. The results show that a student-teacher perception gap of considerable dimension did exist. I took the film and the questionnaires to seven more schools for repeated showings to student classes and faculty groups. The same questions were asked, and any written mention of drugs or drug behavior was coded as a positive response. The survey results were consistent. On the average, one out of three students in grades 7 to 12 mentioned drugs in written responses; one out of eight of their teachers mentioned drugs.

Of the four faculty showings, the most surprising and disturbing results occurred when 16 counselors were gathered at a county-wide meeting to discuss improved guidance services; they viewed the film in the standard way. In only one of the 16 written responses were drugs mentioned as contributing to Linda's behavior! Many sophisticated and subtle interpretations of the interpersonal relationships were noted; few noted anything puzzling or unclear about the daughter's actions.

It seemed more important than ever to attempt to verify the drug clues which one third of the students were perceiving in contrast to their teachers. Two showings were arranged at nearby training schools for delinquent boys and girls where drugs were endemic among the youngsters being examined. From the written response, it was evident that the percentage of mention of drugs was comparable to that of the other schools, but the spoken responses were nearly unanimous. Not only were previously known drug clues in the film verified, but new ones were pointed out.

In an area of subjective response such as reactions to a film, many uncontrolled variables can operate, such as the discrepancy between felt and written responses by the viewers. Relation between drug awareness of a filmed episode and actual drug experience is questionable and should not be implied, for either students or teachers. Given the serious limitations of measuring film-viewers' responses, such a large and consistent difference in teacher-student perception of the same filmed episode should be pondered. Rejection of the clues and a certain rigidity is suggested among the faculty who rarely changed their minds, in contrast to the students.

Although these data are limited, a distinct perception gap between teacher/counselors and their students has been demonstrated. Recommendations for adults who wish to communicate effectively with teenagers on drug abuse would seem to be as follows: Be available to listen to the drug information and the attitudes and motivations which only the youngster can supply. Stop trying to become pharmacological or legal experts on the variety of adverse drug reactions. Examine coolly with the youngster the situational or motivational aspects of drug-seeking behavior. Try to put drugs and drug fears in perspective in an honest discussion of risk taking and coping with personal and social problems.

# Marihuana in Man: Three Years Later

Leo E. Hollister

Until the spectacular resurgence of use of marihuana by Western society during the past decade, scientific interest in *Cannabis sativa* had been largely dormant. During the past 3 years, this interest has been rekindled because of the social importance of the drug, because of the possibility of doing more precise studies, and because research funds became available. It seems propitious to assess accomplishments of the past 3 years in regard to marihuana's effects in man, comparing these with those of the past, and to take inventory of what still needs to be done.

### Marihuana in Man: Past

Much of the work of the past was based on descriptions of effects by individuals exposed to the drug. An avid member of the hashish cult fashionable in Paris during the middle of the 19th century provided an elegant description of its clinical effects, clearly describing such phenomena as euphoria, uncontrollable laughter, paresthesia and weakness, perceptual disorders affecting time, space, and hearing, mental disorganization with flight of ideas and incoherence, hallucinations, and depersonalization.

Concern about the social use of marihuana in the United States stimulated some investigations in the early 1940's under the auspices of the La Guardia commission. These were quasi-pharmacological studies in which measured quantities of marihuana were both orally administered and smoked. Effective doses were obtained, and clinical effects resembled those described before. Electroencephalographic studies were thought to show a correlation between euphoria and increased alpha activity. Performance tests, such as static equilibrium, hand-steadiness, tapping speed, and complex reaction time were impaired. Users of the drug were more tolerant of impairment and less likely to experience initial anxiety or excitement than were nonusers. Tests of various intellectual functions showed some impairment at higher doses, but many tests remained unimpaired by modest doses. The development of frank hallucinations in some subjects was noted when somewhat higher doses were used.

By the late 1950's many of the phenomena of marihuana intoxication had been described. It was not until another 10 years had passed and a marked change in the patterns of use of the drug had occurred in American society that interest in clinical studies was again revived.

### Marihuana in Man: Present

The availability of synthetic tetrahydrocannabinol (THC) as well as chemical techniques for quantifying its content in marihuana has made possible for the first time pharmacological studies providing precision in dose. The efficiency of the delivery of a dose by smoking has been estimated from 20 to 80 percent, but with most experienced smokers it should approximate 50 percent. Synthetic THC and marihuana extracts are also active by mouth, but doses equivalent in effect to those from smoking are about threefold larger. As no method for the quantitative estimation of THC concentration in plasma or urine is available with usual chemical techniques, the actual doses of THC obtained by

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various routes are still unknown.

*Studies of oral doses of synthetic THC*—Three groups including our own at the Veterans Administration Hospital, Palo Alto, have now published on the effects of oral doses of synthetic THC in man. The other groups were from the Addiction Research Center, U.S. Public Health Service Hospital, Lexington, Kentucky, and from the National Institute of Mental Health. A rather wide range of dose was explored, and most doses were beyond those which might be obtained from smoking an ordinary marihuana cigarette.

*Physiological effects.* No changes in pupil size, respiratory rate, or deep tendon reflexes were observed. Only the NIMH group reported a slight but consistent decline in oral temperature. All observers have rommented on the increase in pulse rate. Blood pressure tends to fall slightly or remains unchanged, and muscle weakness has been demonstrated. Both conjunctival reddening and the increased pulse rate correlate in time with the appearance and duration of psychic effects of the drug.

*Perceptual and psychic changes.* Euphoria was most pronounced in our graduate student subjects; it was less marked in the Lexington former drug addicts and in the NIMH group of prisoners. Sleepiness was constantly observed, and often deep sleep followed the higher doses. Time sense was altered, hearing was less discriminant, vision was apparently sharper with many visual distortions. Depersonalization, difficulty in concentrating and thinking, and dreamlike states were prominent. On self-reporting mood scales, our subjects became more friendly initially, less aggressive, less clear-thinking, sleepy, euphoric, and dizzy. The NIMH group found only increased sleepiness and less clear-thinking with the same scale, but their methods of comparison and rating differed.

*Psychometric tests.* We used repetitive psychometric tests of arithmetic ability or freehand drawing, both of which were impaired in different ways. The arithmetic test showed a slowing of performance against time, with maintained accuracy. The drawing test showed reduced accuracy with no slowing of performance. The NIMH group found that accuracy of serial addition was impaired, but that the drug had no effect on ability to count backwards, to say the alphabet, or to repeat digits forwards or backwards.

*Comparisons with other THC homologs and other materials.* We compared synthetic THC with the synthetic $\Delta^3$ THC homolog, synhexyl, both given orally. On the whole, the changes reported above were also produced by synhexyl, but it was about one-third as potent as THC. Effects of synhexyl were delayed by about 1 hour but lasted longer.

The Lexington group compared the effect of taking THC orally with its effects when smoked; they estimated that potency is increased approximately threefold by smoking as compared with taking the same material by mouth. Effects appeared sooner but were of briefer duration when the material was smoked. They also compared the effects of smoked THC with those of LSD given intramuscularly. Subjective effects between the two drugs were not readily distingusihed, but objective differences were marked: LSD elevated body temperature, increased systolic and disastolic blood pressure, exaggerated deep tendon reflexes, and dilated pupils; THC had none of these effects.

*Studies of oral doses of marihuana extracts*—Several experiments with

extracts of marihuana used doses ranging from 5 to 60 milligrams and compared these to each other and to the placebo extract. At smaller doses, appreciable clinical effects were observed as compared with placebo; at larger doses, psychotomimetic effects were observed. In general, effects produced were comparable to those produced by similar doses of synthetic THC.

Tests comparing the effect of doses of marihuana extract containing the equivalent of 20, 40, and 60 milligrams of THC with the effects of placebo indicated that whereas long-term memory was maintained, short-term memory was impaired. Along with this was impairment of a more complex task requiring retention, coordination, and serial ordering of memories relevant to a specific goal. A group at the University of Utah noted, as have others, a great variability in performance during marihuana intoxication, perhaps related to the fact that subjects go "in-and-out," as effects seem to come and go.

*Studies with smoked marihuana*—As marihuana is more commonly smoked than taken orally, some investigators feel that proper studies can use only this route of administration. The major argument against smoking studies is that other active materials may be in the plant which are not found in synthetic THC or extracts, or that combustion may create new active materials. The dose is impossible to judge, as variations in technique of smoking may create tremendous variations in delivery of the dose.

The first such study provided marihuana in cigarettes, putative doses being 4.5 and 18 milligrams, which were compared with a placebo smoke. Naive smokers experienced few subjective effects, and experienced smokers of marihuana reported the typical "high." Effects of the drug smoked in this fashion were relatively mild, which led the investigators to take a sanguine view of the social use of the drug. It seems possible that doses in this study were far less than assumed.

Another study tested driving skill in subjects 30 minutes after smoking two marihuana cigarettes, 1 hour consumption of large doses of ethanol, and after no treatment. Under marihuana conditions, speedometer errors were increased, but driving was otherwise little impaired. Marked impairment was observed from high doses of alcohol. Such controversial findings have elicited criticism because doses of the two drugs were disproportionate, because a dose-response curve was not obtained, and because simulated driving might not be an adequate model for real life. Since our first experiments, we asked subjects when they were "high," "Do you think you could drive a car now?" Without exception the answer from those who had really gotten "high" has been "No!" or "You must be kidding!"

Ten experienced marihuana smokers who smoked two to three cigarettes containing 3.9 milligrams of THC each had only minimum effects. Besides reporting a feeling of being "high," they showed a slight decrease in intellectual efficiency, some excess jocularity, and a slight loosening of associations. Neurological examination revealed a slight improvement in vibratory sense, and the electroencephalogram showed slight slowing in the alpha band with more peaking of frequencies. Subsequent assays of the materials smoked revealed an almost tenfold decrease in its reported strength, emphasizing the difficulties in using the unextracted natural product.

Eight subjects smoked both placebo cigarettes and those containing mari-

huana extract in an amount equivalent to 10 milligrams of THC. Prior testing suggested that only 50 percent of the dose in cigarettes was delivered, so the results were construed as representing an effective dose of 5 milligrams of THC. Subjects reported many more symptoms from marihuana than from placebo and were able to identify the active cigarettes without error; half the group thought the placebo cigarettes was also active, once again confirming the unreliability of subjective identification.

Ordinary cigarettes were dosed with marihuana extract equivalent to 12 milligrams of THC, placebo marihuana extract, $\Delta^3$THC, and synhexyl, a $\Delta^3$THC homolog, and were smoked by subjects habituated to nicotine. Even the smoking process itself in contributing to some placebo responses. The cigarettes with active materials were clearly distinguishable on the basis of subjective effects, which resembled those described for marihuana.

*Studies with both oral and smoked marihuana*—Ten heavy users of marihuana smoked active marihuana and marihuana from which all active material had been removed (placebo), and they ingested active and placebo extracts of marihuana and ethanol. These subjects showed little effect from the large dose of ethanol, and they were scarcely able to distinguish active smoked marihuana from the placebo. Because of the remarkable tolerance of these subjects to ethanol, as well as to a monumental dose of marihuana, the possibility of some cross-tolerance between alcohol and marihuana was raised.

*Metabolism in man*—Recently a 7-hydroxy metabolite of THC has been described, which also has pharmacological activity. Thus, it seems possible that the drug may exert its action through an active metabolite. The prolonged latent period following ingestion of synhexyl led us to propose that it must be converted to an active metabolite. On the other hand, conversion of THC to any active metabolite must be swift, as effects of potent preparations are noticeable within minutes after smoking.

By use of tracer doses of THC labeled with carbon-14, the disposition of an intravenous dose was determined in man. A two-phase biological half-life was found in the plasma; the rapid phase lasted about 30 minutes and was followed by a slow phase of about 56 hours. Metabolites of THC appeared in plasma within 10 minutes, but during the first hour most THC in plasma was unchanged. The 7-hydroxy metabolite constituted only a small fraction of material in plasma but other presently unidentified materials might represent further metabolites derived from it. Less than 1 percent of THC remained unchanged in urine. In vitro studies showed that THC is bound to lipoproteins in human plasma to the extent of 80 to 95 percent. Thus, assumption of prolonged binding in tissues is quite reasonable.

*Relevance of laboratory experiments to social use*—Implicit in all research with these drugs are the influences due to the types of subjects, their expectations and past life experiences, the attitudes of the experimenters, and the setting in which the experiment takes place—all of which may alter the observed drug effects.

It is heartening that the clinical syndromes described for marihuana in the laboratory correspond closely to those reported by street users. With a questionnaire technique and a sampling method that allowed distribution of the questionnaire until it reached a respondent who was a user of mari-

huana, clinical aspects of the social use of the drug were described. Common symptoms reported were: paresthesia, floating sensations, and depersonalization; weakness and relaxation; perceptual changes; subjective slowing of time; flight of ideas, difficulty in thinking and loss of attention; loss of immediate memory; euphoria and silliness; sleepiness. Other common symptoms not verifiable in the laboratory were claims of increased insight and perception and increased sexual desire, performance, and enjoyment.

**Marihuana in Man: Future**

*Social use of marihuana*—Much has already been written about the problem of the rapid spread of marihuana usage, but we lack many important facts for judging the desirability or undesirability of accepting this drug into our culture. Some important questions remain: Is marihuana to be equated with alcohol as a social drug? Some view it as a desirable substitute. It has extraordinary low acute toxicity as compared with alcohol, and it is noncaloric. The degree of impairment from use seems about equal for either drug, but the dose of marihuana is difficult to gauge in available forms, whereas that of alcoholic beverages is precise. The greatest assumption is that marihuana would supplant alcoholic beverages, yet history suggests that the drug would be added to the use of alcoholic beverages by many, or would be used by people who ordinarily might no take social drugs at all.

Few people admit taking a drink to get "stoned" but rather because they enjoy the palatable forms in which beverage alcohol is available or the social occasions at which its use is sanctioned. Marihuana can be used only for drug effects. The smoke is hardly enjoyable, much less the rigorous method of smoking. In considering the social use of marihuana one must justify drug-taking in its own right without the social conventions surrounding the use of alcohol, nicotine, or caffeine.

How serious is the dependence problem with marihuana? Psychological dependence has been well documented, but physical dependence manifested by withdrawal reactions is unknown.

Does marihuana use lead to opiate addiction? This point is highly controversial, and it may be too early to provide an adequate answer. In many parts of the United States, opiate addiction is related to prior use of marihuana, yet only a small number of all marihuana users follow such a progression. As widespread use of marihuana by youth in our country is still recent, it remains to be seen whether the number of persons who are dependent upon narcotics will increase during the early 1970's, when such a phenomenon might be expected to occur if there is such a progression.

What are the immediate and remote dangers of marihuana use? It appears that the immediate dangers are almost identical with those from LSD: Manic or elated excitement, panic states, precipitation of schizophrenic-like or depressive illness, and frank deliriums are infrequent complications encountered among users. Other disturbing reports are subtle effects on the personality associated with prolonged use—loss of a desire to work, loss of motivation, and loss of judgment and intellectual functions.

Should marihuana use be legalized? This solution would have several immediate benefits: it would reduce the number of possible crimes one can commit, it would provide a legal source of pleasure, it would provide another source of taxation, and it

might serve to reduce tensions between races and generations. Legalization of marihuana would require the government to take over licensing and control of the production, manufacture, distribution, and sale of marihuana products. Thus the enormous bureaucracy required to control alcoholic beverages would have to be duplicated or expanded. Control of marihuana might be far more difficult to achieve than control of alcoholic beverages. Bootlegging of alcohol is possible but not easy; anyone with a window box can bootleg marihuana. What may be more immediately appropriate would be to eliminate penalties for possession of marihuana for personal use, not to establish a new body of law that might prove to be as difficult to enforce as the one we have.

*Pharmacological questions*—The true potency of THC has not been fully explored. As techniques for administering the material by inhalation improve, it seems to be more potent than originally believed. Even now, the potency of THC is substantial in comparison to other drugs. Whether or not THC is the major active material in marihuana should become clearer soon, as it becomes possible to test separately other cannabinoids for pharmacological effects.

The question of tolerance, or possibly "reverse" tolerance, is of some interest, and recent work indicates that tolerance can be produced in animals. On the other hand, pharmacokinetic considerations would lead one to believe that any drug with such a prolonged secondary biological half-life as THC should show increasing effects with repeated doses, or so-called reverse tolerance.

Interactions between marihuana and other drugs used socially will undoubtedly be studied soon. Also some experimental difficulties should be overcome, and with increased supplies of the drug, an abundance of studies of the mechanism of action soon will ensue.

*Therapeutic potential*—The sedative and euphoriant effects of marihuana might seem valuable for treating depression, but probably no more so than the conventional sedatives already widely available.

Analgesic effects from *Cannabis* have been described and are demonstrable, but the place of opiates or opioids for treating severe pain or even that of codeine for treating milder pain will be difficult to challenge in terms of rapidity of onset, duration of action, or presence of tolerable side effects.

The hypotensive effects, both of THC and of homologs, have engendered hopes that some derivative might be a useful therapeutic agent for essential hypertension. Other uses which have been proposed for marihuana include the treatment of epilepsy, as prophylaxis for attacks of migraine or facial neuralgia, or as a sexual stimulant. These are more speculative in nature, but because suitable drugs are lacking for at least the last two uses, they will probably bear some investigation.

Soon, it should be possible to determine whether marihuana has any medical utility, but the future would appear to be no more promising than the past in this regard. The mechanisms by which marihuana alters mental functions are not likely to be answered in man, nor even answered soon by animal studies. As marihuana may be unique among drugs in that more experimentation has been accomplished in man than in animals, it may be necessary to look to additional animal studies to provide leads for pertinent future studies in man.

# Lactation as a Denial of Separation

Roy N. Aruffo

Galactorrhea can occur in a number of well-recognized clinical states. Most common is persistence of small amounts of milk in a woman's breasts for long periods after pregnancy, and lactation in the newborn is not uncommon. Some women lactate after menopause or after removal of their ovaries, numerous examples exist in connection with endocrine tumors, and there have been reports of galactorrhea in women who have received phenothiazines for a long period of time. The most common psychopathologic state associated with lactation is pseudocyesis.

### Case Report

The subject of this history was a seventeen-year-old white college student. Previous psychotherapy had been carried out for two years; after graduating from high school, she went away to college where she consulted me. She suffered from anxiety attacks, abdominal and breast pains, dizzy spells, and occasional incapacitating headaches. She also complained of inability to have a comfortable relationship with her parents. Her overt symptoms had begun at age fourteen at the death of her much loved grandfather. She had been present at the onset of his fatal coronary attack, soon she developed abdominal pain, suffering to much to work efficiently at school, and she was hospitalized for gastrointestinal studies. A consulting psychiatrist recommended psychotherapy.

With me she proved cooperative, eager, and highly intelligent; she developed an anxious, strong, positive transference. She was a histrionic person whose fantasy life had a pictorial quality. In the course of treatment, episodes of eidetic imagery began to occur. Often she entered a dissociated state, concentrating on her own thoughts, ignoring my presence. Such states usually ended with a brief outburst of emotion followed by considerable resistance to talk about the thought content. As the treatment progressed, she developed a host of functional symptoms including numbness, dizziness, nausea, pains in many areas of her body, movements of her head, neck, and shoulders. She was indifferent to her conversion symptoms.

### Early History

This patient's father, a gruff, rugged man who loved playing and wrestling with his daughter, was both frightening and alluring to the patient. Her mother, an anxious woman, was prone to episodes of syncope, several of which occurred during arguments with the patient. After collapsing, she would be carried to bed and would spend several days in her room, leaving the child plagued with guilt. Her maternal grandparents took her in during periods when she was most wretched at home, and in their house she felt warm and loved. This dichotomy was a source of painful inquisitions by her mother about whether she loved mother or grandmother more.

At birth the patient weighed just over five pounds; she was fed with difficulty, lost weight, and was kept in the premature nursery for several weeks. After discharge from the hospital, she continued to eat poorly, suffered from a "milk allergy," and slept erratically. Two or three years later

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she "grew out" of what was described as a trying and exhausting period for the family.

Until she was three years old, her family employed a mentally retarded maid who revealed to the patient cannibalistic and erotic fantasies and engaged her in anal sex play. The patient suffered from a "vitamin deficiency" which led to multiple furunculosis, frequent minor surgery, and many painful and frightening injections. Also she developed a temporary deafness which was treated by radiation. At age four a tonsillectomy was a terrifying experience. At seven she developed Legg Perthe's disease; it was necessary for her to be confined to bed and wear braces on her leg. Walking was forbidden for four years, so she was taught at home by a tutor for several hours a week. At age eleven she was allowed to walk and returned to school. At this time her first menstrual period occurred, and she underwent surgery to prevent growth in her undeformed leg. Sexual feelings experienced while being examined by the doctor prior to this operation and her ordeals with the mentally retarded maid figured prominently in the rape fantasies which unfolded in treatment.

**Therapy**

Initially therapy was difficult; the patient was silent for at least half of every hour. Slowly we were able to work on her fear of affectionate feelings she had had of her previous doctor, her inability to trust her feelings about me, and her continuing suspicion that it was "wrong" to want to be in treatment. Toward the end of the first year she began to work hard in therapy and there was an erotic transference. Oral conflict was prominent in her thoughts and colored all she said. Conscious and intense worry about her ability to trust another person was repeated often during the first 6 months. During the next 2 years variations of rape fantasies gradually appeared, all cast in oral terms. She experienced her first consciously recognized sexual feeling—a whole-body phenomenon that became localized anally and was accompanied by dreams of being raped along with wishes to be my wife, to bear and rear my children, to wash my clothes. As she gradually became comfortable with her anal sexual feelings, she responded with panic to genital feelings accompanying wishes to have a baby.

The second summer vacation during her treatment with me was, she said, the most comfortable period of her life. Then a few weeks before she was to return to school and to therapy, she again developed abdominal and breast pains. No organic cause for the pain was discovered. After psychotherapy was resumed she developed severe abdominal pains and heightened sexual feelings. She recalled a "possible real" attempt at seduction by her father when she was 8 years old, memories of her father slaughtering cattle, and dreams that she was being murdered. Some childhood sexual theories were revived; pregnancy fantasies and abdominal and breast pains were regular. Thought content became more oral, and she developed an insatiable appetite. A desperate, hopeless feeling of emptiness seemed to be the focal point of her anxiety and transference. After several weeks a series of dreams facilitated relating the transference to the parents of her childhood.

**Separation and Regression**

The patient became fearful about having to miss several therapy hours and about the impending summer suspension. I mentioned that she was improved, that we had done considerable work on her problems, and that we

should assess the treatment and what she hoped to accomplish. She became uneasy about termination and telephoned me in a state of panic to request an extra appointment. In this interview she told me that she had milk in both breasts.

At this time the patient was involved in a father transference, and a deeply regressive mother transference developed. These two transferences alternated for several months. The conflict was resolved by further regression, the patient becoming at one and the same time my wife, my infant, and my mother. She condensed the fantasies and became her own lactating mother and her own nursing infant. She denied her need for me, and fed herself. Six months later, the patient reported a fantasy in which she was being held up by her heels in a hospital; she had given birth to herself.

As regression deepened, she engaged in much projection and introjection. Her lactating breasts were a source of pride and pleasure to her. There developed conscious wishes to nurse me, to be fed by me, and finally to feed herself. She recalled an early childhood concept of her abdomen and thorax as a large cavity into which all food and fluids poured. The mystery of sex differences was solved by the notion that boys' breasts had been pushed into this cavity from above, causing the penis to protrude below; conversely, if the penis were pushed in from below, then breasts "popped out" above. She also thought that in order to grow big and have a baby inside her, she must eat a great deal and not allow feces or urine to escape.

With her oral aggressive wishes went a marked fear that she herself would be swallowed; in childhood this worry had applied itself to going to the toilet, which she perceived as a large gaping mouth into which she might disappear. She suffered from the absence of a penis, which she compared to the plug needed to keep the water in the bathtub. And now, lactating, she wanted her breasts to turn inward so that she could feed herself, fill up her vacuum, and have a baby (penis), which would act as a plug to prevent her constant sensation of loss associated with elimination.

At times her body image was regressive to the point where she did not differentiate herself from me, nor outside from inside. Shortly after lactation began, she became aware of my curiosity about it and responded by withdrawing from me. Her anxiety took the form of sensing that she was suffocating inside a bottle. The therapeutic transaction was taking place between a hungry, erotic, fearful, devouring mouth and smothering milk. She developed a strong need to reassure herself of my ability to control her behavior. Love was equated with food and she reported orgastic sensations in her mouth, associated with thoughts of eating or masturbation with food.

The onset of lactation revealed some untouched problems. She felt that she now had something very precious, that I would want to take it from her—her breasts and milk. My suggestion that a milk sample be provided for examination was met with her refusal to "feed" my ego through establishing what an unusual patient I had. Envy of her mother, sister, and all women became intense; she felt she could never have their beauty, a normal life, and a body like theirs. Having enlarged breasts with milk in them became her unique source of pride, and any decrease in the amount of milk which she daily expressed caused overwhelming panic. The patient's lactation continued for more than 30 months.

The therapy was characterized by a

lack of the usual defenses and by the use of ego regression as a defensive maneuver. My patient's fear of rejection was of decisive importance; she must keep up my interest by giving me "good" and "fascinating" material. It was a way of feeding me. Her regressive behavior and imagery were expected and accepted by both of us, and they became a factor which stabilized the therapeutic alliance and a vehicle for reliving and recalling the past. It was continuously necessary to integrate the flow of material with her ongoing life and to work out more realistic feelings about her parents and me.

**Discussion**

Lactation had many meanings to this patient, and it soon became a part of other conflicts. She related to her own breast as if it were her mother's breast, her father's penis, her own penis, and her own breast. The dynamic situation centered around feelings of having been castrated and wishes for redress by swallowing father's penis, thereby becoming pregnant and having her own baby to nurse. The conflicts involved mainly centered around triangular relationships between the mother, the father, and the penisless child. My patient's need for dependent love was greatly stimulated by the premature suggestion that therapy be terminated. She met the crisis with the primitive defenses of introjection and projection. She incorporated her mother-therapist and became the person who meets the needs of the dependent infant, then she began to relive, actively and passively, the infantile and previously unfulfilled mother-child symbiotic situation.

In order to handle the terrifying anger at being separated from me, my patient developed a split-mother transference with the intense need to keep the "bad" mother part separate. Then envy of her mother became the dominant theme of the treatment. She wished to possess qualities she saw in her mother, but this was not possible. Therefore, she wished to destroy the object and thus relieve the envious feelings.

Lactation occurred when a number of factors converged on her fear of being deserted, hungry, and empty. Continuation of her treatment was threatened; she faced interruptions in her treatment. She had always maintained primitive object relations which led to powerful unconscious wishes to be fed and treated as an infant. She also desired to have a baby of her own. Her dynamic position was similar to that of the nursing mother who in identification with her infant can feel both parts of the mother-infant symbiosis. She needed milk, and she produced it. This concurs with the fact that in nonliterate societies substitute mothers regularly can produce milk when the desire and stimulation are present, and with the fact that psychological forces by themselves can produce milk in pseudocyesis.

It might be argued that the galactorrhea and threatened termination of treatment were simply coincidental, unrelated events, and that if separation played an important part in initiating the lactation, then with the continued therapy one could expect the lactation to stop. The patient was intensely attached to the mother-therapist. The idea of a permanent separation was met with the feeling and regression of an infant separated from his mother; we can reasonably expect such an event to be reflected in physiological processes. Intellectual awareness that we are going to continue our work did not change the patient's oral needs and conflict. She

still felt that she had to give to me—to feed me—in order to keep up my interest and not be deserted.

Several diagnoses were considered for this case. Initially, the appropriate diagnosis seemed to be "psychoneurosis, conversion reaction." However, once the separation anxiety was brought into focus and the lactation had started, a different diagnostic picture appeared; a psychotic character disorder became manifest.

My patient showed many bizarre and distorted perceptions; these mainly centered around her mouth or some representation thereof. Transient and reversible changes in her body image occurred often, and she sometimes failed to differentiate herself from me. Although she never regressed to an objectless state, she sometimes persisted for several hours in a state where all objects were reduced to milk and food. As in psychosis, this patient's anxiety was at times all-pervasive and much closer to objectless tension than to the defensive anxiety of the neurotic patient. She was aware of her own tendency toward distortion and worried about what would happen if she were unable to reverse this behavior at the end of her hour. She was able to function well at college and had a limited number of friends. Changes in the environment were met with intense anxiety and slow reality-syntonic adaptation.

**Epilogue**

After more than 2 years of treatment during which the patient was working primarily with early mother-child relations, her interest in her breasts and feeding decreased. Lactation was mentioned infrequently, but apparently there was always some fluid in the breasts. However, she was still clinging and dependent. There developed a pattern of telephone calls to me, and my affectionate quiet concern became too obvious to her. This led to fears that neither of us could control the situation, yet my concern was gratifying to her. She demanded to be seen more and more frequently, insisted on permission to make calls at will, and openly demanded affection. This led to a crisis over my insistence that there be no telephone calls and that I determine the frequency of her visits.

Shortly thereafter lactation briefly became important again. She had tried to make a birthday present for her father, feared that she would not finish it in time, and suddenly became aware of a spontaneous flow of milk. Soon there was an overwhelming and openly erotic father-transference.

Genetic material accompanying these hours was sparse but significant. The main theme developed around the fact that father had stepped into mother's role when the child was still an infant. Father had attempted to relieve the early feeding problem by feeding the baby himself, and he also played a large part in the toilet training. The patient was comforted by spending the night in her father's bed —her fears and tears subsiding as he rubbed her back, stroked her thighs, and kissed her. This threw a new light on the intensity with which she demanded that I do something to relieve her anxiety.

Her work deteriorated, and she feared that her employer would fire her. The father became too anxious to work properly and developed a "spastic neck"; the patient decided to visit her comforting father, only to return even more frightened. Eventually she was unable to go to her job and made a suicidal gesture. Her parents then withdrew their support of the treatment and had her return home.

# Methadone and ℓ-Methadyl Acetate: Use in Management of Narcotics Addicts

JEROME H. JAFFE and EDWARD C. SENAY

This study had two major objectives: to gain further clinical experience with ℓ-methadyl acetate, and to determine if ℓ-methadyl acetate could be interchanged repeatedly with methadone. The potential advantages of a long-acting, methadone-like substance are twofold. First, patients at the beginning of treatment in most methadone maintenance programs must travel to a clinic for medication from 5 to 7 days each week. Since methadyl acetate suppresses the narcotic withdrawal syndrome even when administered as infrequently as three times per week, the travel problems of patient just starting treatment are markedly decreased. Second is the possibility of reducing illicit redistribution of the medication. When patients come to clinics for methadone less frequently than every day, the clinics give them medication for use at home. Some patients will abuse this opportunity and give away or sell their medication. The use of a long-acting drug reduces the amount of medication that a clinic must provide to patients for use at home.

Male patients "stabilized" with methadone hydrochloride (no change in dose for three weeks) were asked to participate in the study. They were told that they might or might not receive the new drug. They were asked to fill out a symptom checklist that served as a useful measure of narcotic withdrawal symptoms. Subjects filled out these checklists at the end of the week and at the beginning of the week just prior to receiving their medication. Ten volunteer patients were randomly assigned to experimental (five patients) and control (five patients) groups. The groups were studied for three weekends. One half of the patients received ℓ-methadyl acetate and a placebo which they were to take at home. The control group received their usual dose of methadone at the clinic and another methadone dose to consume at home.

Clinical interviews were held by an experimenter who was unaware of the medication being given to the particular patient. At the end of the study, patients were asked whether they thought they had taken methadone or ℓ-methadyl acetate, describe the difference, and state whether or not they would like to take ℓ-methadyl acetate on a routine basis.

There was no significant difference between experimental-group and control-group checklist scores. Clinically, nothing in the behavior or in the reports of the patient provided the "blind" experimenter with any basis for determining who was taking experimental or control medication. The "set" was more powerful than drug differences; patients in the methadone group were as likely to report spontaneously a feeling of receiving a new drug as were patients taking ℓ-methadyl acetate.

Clinical judgment, corroborated by scores on the withdrawal symptom checklist, demonstrated the feasibility of interchanging ℓ-methadyl acetate with methadone. The results of this pilot study suggest that further work should be carried out with ℓ-methadyl acetate. A number of longer studies with larger groups are planned.

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# Depressions in Childhood and Adolescence

CARL P. MALMQUIST

Childhood depression—one of the clinical conditions of childhood whose diagnosis is most widely missed and hence unreported—is conspicuous for lack of knowledge. Most textbooks of child psychiatry or childhood psychopathology either fail to mention childhood depression or make only cursory reference to it. In fact, the question whether children merely experience states of sadness or manifest symptoms and signs of a genuine clinical depression is still debatable.

Although few clinicians who work with children doubt that children experience mood disturbances, many do not accept diagnoses of childhood depression syndromes as being anything like "disease entities." Another problem is that diagnosis of depression seems associated with factors such as socioeconomic class, the setting in which the patient is evaluated, the theoretical orientation of the psychiatrist, and whether or not he is in private practice. All these factors become magnified when one is dealing with children and families rather than individual patients. A critical need exists to establish the defining characteristics as they apply to depressions, especially to depressive phenomena occurring in the context of developmental processes.

Clinicians working with children have directed their attention to eliciting manifestations of depressive affect in children. Inquiry has been directed to the manifestations of childhood depressions proper and to the development of depressive proneness. Such topics as the following are all relevant: importance of object loss and its nature, grief in children, suicidal problems, family patterns contributing to depressive proneness, epidemiologic data on depressive conditions, and biologic correlates in terms of biochemical alterations or genetic predispositions.

*Dependency-attachment behaviors and depressions*—One of the inescapable requirements for the socialization of the child is that he develop attachments to "objects." As ego psychologic functions develop, an increasing capacity to distinguish himself from others, as well as parts of his body, permits the child to distinguish between objects and their responses. These processes are related to the essential conditions on which depressive responses may be evoked. When attachment behaviors are activated but unfulfilled, the stage is set for development of grief and mourning responses. Under such conditions childhood bereavement may ensue as well as a host of processes with pathogenic potential for child development.

Persistent efforts to regain experienced losses leads to four types of pathologic responses: The first consists of persistent and unconscious yearnings to recover lost objects. Second, guilt can be generated by a belief or realization that the child has had a role in the loss; reproaches aimed at these objects may then be turned against the self. Third, absorption in caring for others who are suffering, rather than g ieving oneself, occurs as a mechanism of projective identification with vicarious mourning. Finally, losses predispose the child to character changes.

The concept of loss has been ex-

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tended to include more subtle disruptions and distortions in parent-child relations which are potentially as devastating in their effects as gross maternal deprivation or separation. It is not simply a question of separation from parents that is crucial; it is rather the emotional position of a child in a given setting.

*Epidemiologic studies*—The epidemiologic approach is important but should be appraised with the following points in mind: Empirical studies based on retrospective object losses have dealt with adult patients, thus involving the problem of reconstructing for patients details of their developmental period; patients used in investigations are often extremely skewed samples; difficulties in obtaining valid control groups for comparison purposes are apparent from the perspective of variables such as socioeconomic factors, family constellations, individual psychodynamics and genetic backgrounds, as well as the usual sex and age factors; the prevalence of "object loss" for individuals may not necessarily correspond with one of the categories used in empirical inquiries.

*Development of depressive proneness*—Depressive proneness may develop in a child who does not have gross signs of disturbance. Depressed moods in mothers during the first two years after birth create a tendency to similar moods in the children, although they may not become manifest until years later. In these cases infants achieve their sense of unity and harmony with the depressed mother not by means of developmental achievements but rather by producing the mood of the mother in themselves. Parents staving off their depressed moods by extreme and unpredictable activity and periodic overstimulating play with a child contribute to a depressive diathesis in the child.

Clinical work reveals that not all children with "narcissistic vulnerabilities" have lost an external object. Complex psychologic processes operate with respect to losses. These processes are partially attendant upon developmental lines toward object constancy in order to achieve separation and individuation. Actively leaving and returning, with a maternal readiness for the infant's separation and return, are steps toward acquiring an internal object constancy; "giving up" the fusion promotes individuation. Depressive moods may be generated by relinquishment of the child's belief in his omnipotence and a feeling that the parents are withholding power from him. Such moods manifest themselves by temper tantrums, continual attempts to woo or coerce the mother, then giving up in despair, or in impotent resignation and surrender. The natural history of these mood states in the preschool child may continue, or give way to a premature earnestness and undue seriousness—indications of precocious superego formation. Failure to attain object constancy reveals itself in signs of separation difficulties, ambivalence, precocious overidentification, pseudo-self-sufficiency and reduced emotional spontaneity.

Other psychologic processes may have serious implications toward implanting a depressive nucleus in a child. The self-concept evolves in part via the evaluation of others. By repetitive introjections of self-depreciatory attitudes, feelings of unworthiness become internalized as part of the child's self-concept. Angry, distance-promoting behavior increases interpersonal isolation from family members, and since some attachment to parental figures exists, the child cannot understand or appraise the situation. Most typically, parents do not comprehend, nor are they aware, of the innumera-

ble ways in which their actions are manifested.

Fears of punishment for failure emerges in the child with a tendency to depressive states, his fear being more exaggerated than parental behavior dictates. Theoretically, this is viewed as a hypertrophy of the child's superego in response to magnification of an external danger. An internalized control system is less tolerant than the actual parents, since parents are rarely completely intolerant. Strict, uncompromising standards give the child a feeling of hopelessness and helplessness. Parental isolation and aloofness, far from making the child autonomous, produce exaggerated dependency needs for obtaining tender affectivity.

Pathogenesis of the vulnerable narcissistic character structure in childhood is a key topic. One hypothesis ties this in with the devalued self-image seen in children when they experience early forms of deprivation, neglect or loss. Repeated rebuffs or losses reaffirm to the child that an important object did not place worth on him and that he is dispensable. These transactional processes may give rise to potentiality for later regression during adult depressions.

In the young child, deprivations may be met not only by an increase in narcissism but also by a greater flexibility due to their acceptance of substitute objects. Loss of self-esteem as a response to loss is not thought to appear until a structural division of mental activity has been accomplished so that mourning, as a process of detachment from inner representations, can occur. Only when an object is valued can its loss lead to self-devaluation. When an object becomes important the child becomes concerned with the question, "Who will love me when I am left?" and the answer, "No one may want you." If one is worth little, one is abandoned. Such reactions appear to operate in many children during the latency period when they deride themselves.

Accompanying distortions in self-appraisal are individual mood variations that emerge as personality characteristics. Children's moods have three main characteristics: affective manifestations are intense, they are briefer and change rapidly, and the affective range is limited. When a propensity to pathologic mood disturbance is developing, there is less variety and spontaneity of moods, although a more exaggerated quality is present and is evidenced in persistent forlornness and sadness.

*Family contributions*—Family configurations offer another vantage point from which to study depressed children. There is a sensitivity in family members to the norms of the group to which they aspire. Not only is the child used as a vehicle for the family to gain entrance into the group, but his acceptance within the family is conditional upon his successes. Emphasis is placed on conformity to an austere parental figure who rewards self-conscious dedication to duty. Such a child is industrious, yet feels inferior. Affection must be earned, and if it is not forthcoming, deprivation is interpreted as due to a performance that does not merit reward.

Being selected as a favorite child can give rise to the "Joseph syndrome" in which children are unconsciously fearful of arousing envy and jealousy in others. To counteract these fears, defensive techniques develop as a pattern of chronically underselling themselves, coupled with a feeling of having to help or give to others, to be accepted. Being competitive and envious, they quickly sense similar feelings toward them in siblings and

peers. Fathers in such families appear relatively unsuccessful, yet possess emotional warmth; this dethroned parent is the one to whom the child becomes most attached. Some symptomatic disturbances associated with such a family configuration are not encompassed under depressions—for example, learning disorders and chronic underachievement. These would constitute the equivalent of "success phobias" in adults where success carries the threat of envy and of abandonment.

Characterologic maneuvers may also result in these family settings. Children exhibit interpersonal ingratiation and cautiousness with respect to aggression. These are efforts of the ego toward the superego as the controller of self-esteem to reinstate a loving and beloved superego in place of one that is predominantly harsh and primitive. An expansion of this framework views the potential depressive as a hostile, manipulative child who had to outcompete others and resented personal demands since he thought he was being used unfairly by others for their own selfish ends. Consequently, such a child is unwilling to provide gratifications for others unless he is assured of receiving himself. If he is not receiving, he may seek to extract from others or retaliate on them.

*Classification of childhood depressions*—The following outline of a tentative classification of childhood depressions combines several criteria, such as descriptive features, age and etiology:

I. Associated with Organic Diseases
   - A. Part of Pathologic Process
   - B. Secondary (Reactive) to a Physical Process

II. Deprivation Syndromes—Reality-Based Reactions to Impoverished or Nonrewarding Environment
   - A. Anaclitic Depressions
   - B. "Affectionless" Character Types

III. Syndromes Associated with Difficulties in Individuation
   - A. Problems of Separation-Individuation
   - B. School Phobias with Depressive Components
   - C. Developmental Precursors of "Moral Masochism"

IV. Latency Types
   - A. Associated with Object Loss
   - B. Failure to Meet Unobtainable Ideals
   - C. "Depressive Equivalents"
   - D. Manic-Depressive States
   - E. "Affectless" Character Types
   - F. Obsessional Character

V. Adolescent Types
   - A. Mood Lability as Developmental Process
   - B. Reactive to Current Loss
   - C. Unresolves Mourning from Current Losses
   - D. Earlier Losses ("Trauma") Now Dealt with by Ego
   - E. Acting-Out Depressions
   - F. Schizophrenias with Prominent Affective Components
   - G. Continuation of Earlier Types (I.-IV.)

*Depressions in midchildhood*—In preoccupation with depressive phenomena in infancy, adolescence and adulthood, the middle years of development are often slighted. Depressive manifestations in this group are more frequent than psychiatrists previously realized. Although a more structured mental functioning is then present, some question if concepts of depression can appropriately be applied to childhood. Conceptual confusion may be due to the "latent" manifestations of depression at this age, in which overt symptoms of depression are absent. Parental unwillingness to admit that children are sad and unhappy leds to further underestimation of frequency.

Clinical and developmental studies have confirmed that latency is not a quiescent period; controversy over the presence of depressions in the latency

period are not debatable to the same extent as with infantile depressive phenomena. It is not unusual to observe latency-age children placing demands on themselves more severe than those made by parents. This may be explained in terms of superego immaturity, or a projection of aggression onto internalized objects that are then used against the child himself to ensure that transgressions will not occur.

Data from the Hampstead Index in terms of depressive reactions have been used in conjunction with manifestations in children whom I have treated to construct a list of signs and symptoms in depressed children:

A physiognomy that records a sad, depressed or unhappy-looking child; a psychomotor behavioral picture that conveys sadness.

Withdrawal and inhibition with little interest in any activities; listlessness that may give an impression of boredom or physical illness.

Physical or regional pain, dizziness, insomnia, sleeping or eating disturbances—"depressive equivalents."

A quality of discontent; initial impression is that the child is dissatisfied and experiences little pleasure; impression that the child somehow holds others responsible for his plight.

A sense of feeling rejected or unloved; readiness to turn away from disappointing objects.

Low frustration tolerance and irritability; poor self-concept.

Although the child conveys a sense of need or wanting comfort, it is then accepted as his due; he remains dissatisfied and discontent.

Reversal of affect—clowning or foolish, provocative behavior.

Blatant denials of helplessness and hopelessness feelings are made verbally and behaviorally.

Provocative behavior stirs angry responses in others, leading them to use this child as a focus for others' disappointments.

Tendencies to passivity; expectation that others anticipate his needs; anger expressed by passive-aggressive techniques.

Sensitivity and high standards; harsh and self-critical.

Obsessive-compulsive behavior.

Episodic acting-out behavior.

What are the phenomenologic or pathologic experiences of depressive-prone children? They are sensitive and easily hurt owing to their problems in the narcissistic realm of tenuous object ties. Inner hestitancy appears as a fear of committing themselves in school, play, or peer relations. These children wish to relate and make attempts, but fear failure or abandonment in contrast to schizoid children, who prefer their withdrawal. In this connection the presence of obsessional personality characteristics is to be noted. The child usually can give no reasons for his periodic altered moods.

Nostalgia and self-pity emerge at the age of 3 to 4 years in most children. By then they are capable of directly verbalizing their feelings about missing a parent who leaves. Sensitive observers detect a mild depressive affect when a parent, pet or friend is absent for more than a short time. A 4-year-old refuses to participate in an activity that he enjoys when something is denied him or he is reprimanded. This permits self-pity for the self-imposed renunciation to emerge. Families that mutually use these behavior patterns pursue retaliatory aims that permit the child to indulge his wounds. Conflicts centering on aggression, masochisms, guilt over aggression or success and patterns of expiation emerge.

A frequent pattern is the presence in the home of an adult who is periodically depressed. The emotional tone of sadness and loneliness in the adult functions as an independent variable and leaves a particular imprint on psychosexual and psychosocial develpment of the child. The response is further contingent upon the child's developmental stage.

Children with clinical depressions may be pathetic or long-suffering or may show symptoms that do not impress an observer as manifestations of depression. They have been seen by physicians for problems of weight loss, declining school performance or somatic complaints, for which no explainable organic abnormality has been demonstrated. The most frequent somatic symptoms are headaches, dizziness, abdominal pain, nausea, or difficulty in sleeping. These are the child equivalents of adult "masked depressions."

Reports may indicate that the child is a "loner" and does not enjoy play activities with other children. Profound pessimism may alternate with teasing and sadistic behavior, as a response to feelings of loneliness and being unwanted and unacceptable. In some children an abrupt shift in behavior indicates a depression. Previously outgoing and carefree children grow quiet and preoccupied, or conforming children with obsessional tendencies show more mood variations, with breakthroughs of "delinquent" behavior. Obsessional activities in the depressed child may represent efforts to compensate for the feelings of helplessness present in a depression. An association between loneliness and compulsivity in children permits compulsions to serve as a defense against sadness and loss.

Emergence of self-hate leads to the genesis of self-destructive behaviors. Enduring patterns of provocative behavior toward other children and teachers that elicit punishment, or patterns of repetitive self-injury during play, suggest such trends. Aggressive behavior may be used to avoid depressive feelings. This is seen especially when there is a direct threat to the integrity of the child (when a child cannot deny his cravings for affection or when his feelings of worthlessness become overwhelming). Distortions in ego development occur that may not be reversible. A fundamental question is when a "depressive character" becomes relatively fixed in a child regardless of reversibility of overt depressive symptomatology.

*Adolescent depressive phenomena* —Early adolescence is a time when struggles with self-esteem, values and guilt, which are related to images of one's self and body, come closest to producing a psychotic personality adjustment. Reference to epidemiologic questions have been made pertaining to whether or not depressions are frequent because of various types of antecedent losses. Also there is a large group of adolescents not diagnosed as depressed but demonstrating a persistent and severe mood of sadness. Moods, as complex ego states, reflect various developmental experiences and deserve extensive exploration. One theory is that moods take origin in the inevitable shifts in object relations that the child goes through in separating his own individuation in the early years of life. Moods remain subject to later stimulation and provocation. The striving for rational explanation often causes trivial environmental events to be pointed to as causal agents, bypassing subtle distinctions between external or internal and conscious and unconscious influences.

The fluctuating mood state of adolescence helps to distinguish it from a state of chronic depression. Most adolescents go through phases of mood change and emerge with an ego capable of curbing demands for impulse gratification without resorting to defenses based on ascetic "other-worldly" demands. In contrast, schizophrenia emerging in adolescence does not appear to have a persistent need to seek out new objects. The common thread

through all these disturbances is the influence exerted on the important ego function of reality testing. Nor is this confined to appraisal of environmental stimuli, for it influences self-appraisals. Perceptual aberrations of an unexaggerated or overexaggerated type may occur in combination with defense mechanisms, such as denial and isolation, that permit selective memories and cognitions to register. Conscious contradictions are tolerated as long as they are congruent with the prevailing mood.

Depressed adolescents show mixed symptomatology. They may go through transient episodes that change within a short time. Among the most typical features periods of alternation occur between apathy and indifference, which then shifts to garrulousness. Manic reactions in adolescents do not take the same form as in adults, presumably because ego functions are not capable of such a sustained degree of defensive specificity. Cyclothymia as a stabilized personality structure must be differentiated from the developmental mood liability of adolescence by evaluation of the general aspects of personality functioning and past performance.

A second feature consists of unresolved dependency conflicts, which have a major role in adolescent depressive reactions. Conscious recognition of needs to emancipate exist contemporaneously with an increasing sense of despair over the capability of emancipating. Somatization, hypochondriacal concerns or actual psychophysiologic disease may begin during these crises. Increasing anger and rage may result in hostile attacks on parents, family, or external authority without a capacity to delineate the source of such difficulties. Forays of impulsive acting out, with subsequent returning home, demonstrate the ambivalence. Despite such forays, which may involve periodic episodes of absenting, past difficulties are repressed or ignored. During extended adolescent absences from home, fantasies are indulged in about home, where all one's needs and wishes were somehow met.

A third component in adolescent depressions involves diverse superego activity. Sensitivity and proneness to overreact to any criticism is common. Peer relations actually have a conservative quality whereas relations with adults show ambivalence, with angry outbursts and subsequent attempts to undo the damage caused. The depressed adolescent has a chronic feeling of being unable to satisfy himself in terms of ideals, ambitions, or self-concept. Rebelliousness against the environment and superego, as well as demands for impulse gratification, leaves the ego in a state of impoverishment with a predominant affect of guilt. Re-enactment of earlier competitive relations, which often again result in disappointments, similarly contribute to a feeling of inadequacy.

The fourth feature, acting out, can be expected to some extent in most depresssed adolescents. Acting out may function as a defense against the affects of despair and helplessness, but it has additional meanings once depression is present in adolescence. It may be a maladaptive effort to consolidate a personal identity or that within an antisocial subculture group. Acts such as promiscuity, cheating, theft, and physical assault and violence can represent sexual or aggressive components. There appears to be a state of panic that threatens the integrity of the adolescent ego. Rather than face this unknown disintegration, the adolescent resorts to dissociality as an externalized action that follows known laws of causality.

Fifth, an insatiable seeking of affection and approval at any price is one maneuver adolescents use to deal with depression. In part this is a need to capture what they think never existed, but whose lack now raises a threat to their well being; this contributes to compulsive aspects of their affection seeking. All assocations with males and females hold out the hope of providing a tender and trusting relation that is repetitively sought.

A sixth feature, confusion in identification, is associated with an impaired self-image. When the adolescent is feeling depressed, new object relations are not developed, but there may rather be an indulgence in what life could be like or fantasies of what it will be like in the future. Too prominent reality demands interfere with these fantasies, and a profound sense of hopelessness may ensue. Groping for the idealized adult may persist into adulthood as a perpetual quest for the "hero," with disappointments and searches for new heroes. The "hero" may take an institutional form, which will never betray or abandon one. Bitterness and disappointment may lead to groups with counterculture identifications.

Confusion in identity, a seventh feature, is precipitated by needs for commitment to physical intimacy (sexual and otherwise), choices about vocation, competitive strivings and psychosocial definition. Clinical manifestations are indecisiveness, a feeling of estrangement, loss of inner continuity, a renewed struggle with old objects and an inability to work or concentrate. Depressed adolescents carry their defective identification models through successive developmental stages.

Finally, heightened self-condemnation is another pattern observed in depressed adolescents. Disparagement of their activities as materialistic, or based on motives that are ulterior, and therefore unworthy, are common in many adolescents, reflecting attempts at self-control. Such dispositions appear to develop early, whatever the predisposing factors may be—genic, early losses, or reinforcement of self-derogatory cognitive appraisals. The dispositional tendency to misinterpret experiences in terms of one's shortcomings is characteristic, and it generalizes. Such a child then interprets himself as responsible not only for his failings but also for others' miseries. The burdens of the world become his. The potentiality for delusional thinking emerges and delusions in psychotically depressed adults occur that are extensions from these cognitive distortions.

# Therapeutic Abortion: A Study of Psychiatric Applicants at North Carolina Memorial Hospital

John R. Partridge, Timothy M. Spiegel, Beatrice A. Rouse, and John A. Ewing

The purpose of this study was to clarify what has been happening at North Carolina Memorial Hospital (NCMH) in the field of therapeutic abortions requested for reasons of mental health; who has been applying, what their reasons are, why permission for abortions is granted, whether abortions are done or not, and how they are performed. The total sample consists of 207 applicants who were seen during a period of about 21 months.

Abortion applicants at North Carolina Memorial Hospital whose grounds pertain to mental health are interviewed by a member of the Department of Psychiatry. The psychiatrist sends a letter to the Obstetrics Department describing his findings and recommendations. All psychiatric letters about the 207 cases were evaluated for a variety of information. Hospital records at NCMH were reviewed and when necessary, letters were sent to the referring physicians requesting data on the disposition of the case.

The demographic data in this sample were significantly different from that of the state's population as a whole. Among the 207 abortion applicants in this study, the mean age was 24.2; 6.7 percent were Negro; 92.8 percent were white, and there was one Oriental. Among those whose marital status was recorded, 57.2 percent were single, 24.4 percent were married and living with their husbands, 7.9 percent were separated, 9.5 percent were divorced and 1 percent were widows. There were fewer poor, fewer black, fewer non-student, and fewer married women in the sample than one would find in a cross-section of the North Carolina population. But the sample did display a degree of heterogeneity that refutes a stereotyped picture of a woman seeking therapeutic abortion.

In addition to specific psychiatric diagnoses, the psychiatrist took particular notice of such things as the patient's family background, sexual history, relationship with the father of the baby, career and goals for the future, previous psychiatric treatment, emotional and behavioral symptomatology secondary to the pregnancy, and the likelihood of the patient's inflicting self-harm or seeking an illegal abortion.

The most frequently cited problem in 44 cases in family background was the presence of emotionally "rigid" parents. Other evidence of disturbed family background was cited in 50 cases, such as chronic parental arguments and separation or divorce of parents. In 58 cases the pregnancy significantly interfered with career or educational plans.

Twenty-six women had a history of previous psychiatric treatment, often hospitalizaton for suicide attempts or psychoses. The psychiatrists felt that such a history often underscored a patient's vulnerability to significant emotional harm from an unwanted pregnancy. The psychiatrists suspected a credible potential for suicide in 109 cases. Ninety-two women reported having considered suicide as a solution to the problem posed by pregnancy and five claimed they had actually attempted suicide since conception. Sev-

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enteen gave past histories of attempted suicide.

The most frequently noted adverse behavioral symptomatology among the abortion applicants included crying spells, tearfulness during the interview, agitation, complaints of nightmares or anxiety dreams, inappropriate affect, irritability and repeated sighing.

Eighty-six women reported having considered obtaining an illegal abortion; twenty-six threatened to seek illegal abortion if denied a therapeutic abortion. Sixteen women claimed to have tried to induce abortion.

The most frequent significant emotional symptom among these patients was that of depressive feelings, displayed by 121 of the women. Forty-five reported significant guilt over their pregnancy, and 38 had symptoms of overt anxiety. Of the fears possessed by these women the most frequent were fear of hurting the parents and the cost of having and raising a baby. Eighteen voiced fear of the social stigma attached to having an illegitimate child. Other fears were of rejection by family, of having a malformed fetus, and of losing a job. Three expressed fear of childbirth, and two feared the abortion procedure.

Contraceptive practice at the time of conception was a bifid barometer of the psychiatric indications for abortion. A young woman who was sexually active but took limited or no effort to protect herself from conception was considered naive or inclined to deny reality. The mental health of such a woman could be severely compromised by the completion of an unwanted pregnancy. A woman who had taken rational steps to prevent conception and had good reason for fearing the birth of an unwanted child would also be liable to serious damage to her emotional health. A history of the use of no contraceptive technique was elicited from 104 women. In 74 cases the psychiatrist felt that the pregnancy was directly attributable to failure of contraception. Some women did not transfer their contraceptive knowledge to their behavior, suggesting that emotional factors were influential. Many women displayed naivete or gross misunderstanding of contraception.

Analysis of the patient's relationship with the father of the child revealed that 51 of the women were married to the man at the time of conception. In 24 of these cases there was evidence of chronic discord or at least lack of harmony in the marriage. Of the 153 who were not married to the man at the time of conception, 22 had planned to marry him, 101 were not going to marry the father, and 19 were still planning to marry him.

Perhaps the most remarkable aspects of the psychiatric diagnosis is the small representation of psychoses in this sample. Just a few years ago psychoses probably constituted most of the cases of therapeutic abortion on psychiatric grounds performed in the United States.

Depressive neuroses were present in a large part of the total sample. The combined categories of depressive neurosis and depressive feelings of lesser degree made depression the greatest single factor indicating justification and utility for therapeutic abortion. The diagnostic category of transient situational disturbances applied in 83 cases; these women would stand the best chance of psychiatric benefits from a therapeutic abortion.

Of 207 applicants, 204 were approved for abortion by the psychiatric consultant. One was found not pregnant. Each of the two other women judged inappropriate for abortion felt relieved by the decision and actually thanked the psychiatrist for his insight.

# Perception of the Large-Scale Environment

WILLIAM H. ITTELSON

Every organism lives out its days in relation to and as part of a larger environmental context. The reception and processing of information from the environment constitutes the area of study that psychologists, along with many others, have investigated under the heading of perception. Perception acquires its importance as an area of study from the fact that it is the source of information about the environment and that this information is intimately related to the adaptive functioning of the organism. The overwhelming bulk of experimental work in perception has been carried out in the context of object perception rather than environment perception, with the findings of the former providing the basis for understanding the latter.

Objects require subjects; a truism whether one is concerned with the philosophical unity of the subject-object duo or is thinking more naively of the object as a "thing" that becomes a matter for psychological study only when observed by a subject. In contrast, one cannot be a subject of an environment, one can only be a participant. The very distinction between self and nonself breaks down; the environment surrounds, enfolds, engulfs, and no thing and no one can be isolated and identified as standing outside of and apart from it.

Environments are necessarily larger than that which they surround, but the environment with which we are here concerned are large-scale—large, that is, in relation to man (large enough to permit, and indeed require, movement in order to encounter all aspects of the situation). Large-scale environments, extending from rooms through houses, neighborhoods, cities, and countrysides to the whole universe in size, necessarily possess many properties that objects almost always do not, and usually cannot, have. And these characteristics to a large extent determine the nature of the problem posed by environment perception.

The first, most obvious, and defining property, the quality of surrounding forces the observer to become a participant. One does not, indeed cannot, observe the environment; one explores it. If the observation is the object, then the exploration is the environment. The problem of exploratory behavior, its nature and function, and its relation to the individual's larger purposes becomes central to the study of environment perception. The limits of the exploration, however, are not determined; the environment has no fixed or given boundaries in space or time, and we must study how the explorer himself goes about setting his own boundaries to the various environment he encounters.

Environments in addition are always multimodal. We need to know the relative importance of the various modalities, what kinds of environmental concepts and sets of environmental predictabilities are associated with each modality. But, more important, we need to know how they function in concert; what processes are involved when supplementing, conflicting, and distracting information is presented through several modalities at once.

A third necessary characteristic of environments is that peripheral as well

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as central information is always present, peripheral in the mechanical sense—the area behind one is no less a part of the environment than that in front—and peripheral in the sense of being outside the focus of attention. Both meanings raise questions concerning the processes underlying the direction of attention.

Fourth, environments always provide more information than can possibly be processed. Questions of channel capacity and overload are inherent in environmental studies. Environments always present the same instances of redundant information, of inadequate and ambiguous information, and of conflicting and contradictory information. The entire mechanism of information processing in the nervous system, about which we are only beginning to learn, is brought into play.

These four characteristics of environments suggest that findings in object perception can only with great caution be applied to environment perception. But these characteristics are rather traditional in perceptual studies in that they refer to what can broadly be called stimulus properties. Beyond these, there is another group of properties of the environment which must be taken into account in any study of environment perception and are almost completely foreign to the field of object perception.

The first is that environment perception always involves action. Environments are not and cannot be passively observed; they provide the arena for action. They define the probabilities of occurrence of potential actions, they have demand qualities that call forth certain kinds of actions, and they offer differing opportunities for the control and manipulation of the environment itself.

Environments call forth action, but not blind, purposeless actions. The environment possesses the property of providing symbolic meanings and motivational messages that themselves may affect the directions action takes. These meanings and motivational messages are a necessary part of the content of environment perception.

Finally, and perhaps most important of all, environments always have an ambiance, an atmosphere, difficult to define but overriding in importance. Environments are almost without exception encountered as part of social activity. Other people are always a part of the situation, and environment perception is largely a social phenomenon. Environments always have a definite esthetic quality. Esthetically neutral objects can be designed; esthetically neutral environments are unthinkable. Lastly, environments always have a systematic quality. The various components and events relate to each other in particular ways that, perhaps more than anything else, serve to characterize and define the particrticular environment.

I offer no general methodology for studying environment perception but will instead describe briefly the kinds of approaches my colleagues and I are following. We have made use of already existing environments, and we have constructed our own. We have looked at common, everyday environments and sought out, wherever possible, unique and novel environments.

The existing everyday environment has the disadvantage of being approached by the participant with a vast amount of information already in hand, which may serve to mask important aspects of the process entailed in the acquiring of that information. Perhaps the most important work can be done in the controlled, novel, laboratory environments.

In our own studies of everyday environments we have primarily bee

concerned with detailed observations of behavior in hospital wards. A number of goals have been pursued in these studies, but of direct relevance to the question of environment perception has been our interest in the ways in which the environment affects the range of behaviors that the subject believes are open to him and the choices of behaviors he makes under various circumstances as a function of the environmental situation.

Truly novel environments are difficult to come by and most can perhaps better be described as unfamiliar rather than novel. In our hospital work, we have altered familiar surroundings to make them, at least for a time, unfamiliar. An important trend in contemporary art is the so-called environmental movement, and there are frequent exhibits of environments designed by artists with various purposes in mind, environments for contemplation, environments to be experienced, environments to be touched, to name a few. We have interviewed people going through these environments in the normal course of their museum-going activity.

Finally, we are in the process of conducting a series of experiments in a laboratory environment we have constructed. It is designed to present the individual with a novel situation that emphasizes his awareness of himself as an integral and active part of the environment. The basic components are a number of large mirrors whose surface contours can be electronically controlled, together with accompanying lights and sound. The observer hears and, to a certain extent, feels the sounds and at the same time experiences himself quite vividly as his multiple images and reflections move about in shape and space. The overall effect is quite startling and compelling. In this setting, we have been trying to identify environmental search or exploratory strategies and the cognitive strategies used in conceptualizing the environment with the ultimate aim of developing a comprehensive theory of the acquisition and utilization of information about environmental systems and subsystems.

We do have some findings, tentative and preliminary but commanding some degree of confidence. Most immediately obvious is the evidence of individual differences. Our subjects seem more or less equally divided between those who approach the environment in terms of experience—when asked to describe the environment, they describe their own feelings—and those who respond in terms of structure: they give engineering-like descriptions devoid of experiential content. These differences seem to be independent of whether the situation is liked or disliked or whether it is studied long and carefully or briefly and casually.

Regardless of individual differences, however, all people seem to organize their perceptual response to the environment around five identifiable, although interrelated levels of analysis. These are affect, orientation, categorization, systematization, and manipulation. The details need further study and will vary with the nature of both the physical situation and the social relationships obtaining.

The initial response to the environment is affective. The direct emotional impact of the situation, perhaps largely a global response to the ambiance, generally governs the directions that subsequent relations with the environment will follow. It sets the motivational tone and delimits the kinds of experiences one expects and seeks.

The establishment of orientation within the environment is a second

level of response. The identification of escape routes is perhaps the most primitive form of orientation and is particularly compelling in novel environments with negative affect. More generally, the location of positive and negative features, including other people, results in an initial mapping of the situation that provides a base from which more detailed exploration can be undertaken.

Once a satisfactory level of orientation has been achieved, the process of developing categories for analysis and understanding is initiated; the first steps are taken toward developing a taxonomy that in a sense is never to be completed. The initial categories probably have to do with events, from which objects are ultimately distilled in more and more detail. We already know that conceptual categories are not imposed by the external situation but are largely governed by goals, predispositions, and generalized expectations that the individual has already internalized.

The fourth level in the process of environment perception is the systematic analysis of relatonships within the environment. Predictable sequences of events are identified and separated from random or unique occurrences. Causal connections are postulated and verified. The complex set of interrelationships that characterizes any particular environment is gradually brought into order and harmony. This order or system in the environment is analogous to constancy in objects. Properties of the system remain constant in the presence of continuously changing events in much the same way that properties of objects remain constant in spite of ever-changing stimulation.

Throughout this process the individual is never passive. He acts within and as part of the situation and learns the kinds of interventions he can bring about and their consequences, generally in terms of environmental change and more importantly in relation to his own needs and purposes. In this context, the relevance of perception to the situation in which it occurs can be defined for the individual as the mutually supporting construction of action and perception in the service of purpose.

These processes do not function sequentially but continuously interact with each other. Each aspect calls for its own set of strategies, which probably are characteristics of the individual. The individual cannot be separated from the environment. He is part of the system he is perceiving, and the strategies he chooses become part of the environment he in turn experiences as being external to himself.

The way we view the environment, thus, is a function of what we do in it, including what strategies we use in exploring and conceptualizing it. And what we do in it represents in turn a choice from many alternatives, the nature and scope of which are progressively restricted by previous, frequently irreversible decisions. The environment is in this sense an artifact created in our own image.

# Communal Work and Living: Notes on the Dynamics of Social Distance and Social Space

ANNE DAVIS and VIRGINIA OLESON

How do people gain and maintain distance from their fellow workers as well as those who receive their services or products? How much role or social distance will suffice without disruption to the enterprise and what devices and strategies facilitate the maintenance of adequate, nondisruptive and social distance at work? These questions lead the investigator to consider the degree of segregation between the occupational incumbents' work and private lives as a critical variable. This segregation occasions problematic choices of residential area, partners for and type of social life, religious activities, leisure pursuits and acceptable spouse behavior. For certain occupations, a high degree of role segregation between work and private roles appears crucial to adequate performance of the occupational mandate.

This article will scrutinize an extreme case of work and private role fusion, utilizing the spatial variable in the analysis of social distance on the assumption that examination of a situation with little or no role or spatial segregation between occupational and private roles can illuminate less extreme cases. Such an extreme case is that of communal work and living on the *kibbutz*.

Though there is little separation between occupational and private roles in this setting, not all kibbutz residents tolerate this with equal grace. Just as there is little separation between roles, what types of maneuvers achieve distance? To describe these we shall outline the status arrangements, work and round of life at a kibbutz in northern Israel. The collective here described will be called Kibbutz Lamed. No attempt is made to generalize from these statements to all *kibbutzim,* since the collectives are differentiated by residents' national origins, religious or political affiliations, type of economic base and degree of affluence and the extent to which a division of labor has progressed.

The maturity of collective farms and their ecology seem related in ways that enhance or diminish accessibility to personal and social distance. Kibbutz Lamed, now just over 20 years old, had some trees, but was relatively bare and isolated on a high hill surrounded by crop lands. Two types of statuses, ethnic and structural, were significant in its stratification. Founded by middle class Canadians and Americans, this kibbutz through the years has recruited a number of adult *sabras.* Although the *sabras* were well assimilated into communal life and ideology, they nevertheless were a perceptible sociometric group which drew its social life from its members, perhaps because they did not speak English. There was relatively little socializing between *sabras* and others during nonwork hours.

The most significant structural statuses were those of member and founder. Persons who wished membership could signify their intentions after which they would spend a probationary work year, assessing the merits of the farm and being assessed by members. Whereas members, although of varied background, were somewhat homogeneous by virtue of being members, the nonmembers included a

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collection of probationers, occasional visitors, transient laborers, adventurers, and adolescents from youth movements. Second only to the distinction between members and nonmembers was that between founders and newcomers, who never could enjoy the esteem accorded the pioneers for their idealistic devotion to kibbutz principles and their hard work and sacrifices in the difficult early days.

Also at play in the kibbutz stratification system were certain role attributes, some of which tended to produce greater cleavages among residents than others and for this reason were significant to our observations of distance-inducing devices. Education provided the basis for common interests in friendship groups, but was not truly divisive, since the communal emphasis on the value of hard work transcended it. At Kibbutz Lamed males were more esteemed, because they work at harder jobs, even though the women did hard work, too. Everyone seemed to accept this differentiation. Set off from their fellow residents were married persons, and most especially, married persons with children, these attributes being highly valued by the residents.

The daily and weekly round of life pulled residents together, binding individuals in the collective mode. The open-diffuse, member-member solidarity is based on frequent interaction in after work hours. The institutional activities are so arranged that continuous contact and exchange takes place among the adults. The seating arrangement in the dining hall, the common use of the shower room, the sharing of a library and the close ecological spacing of living quarters illustrate this principle. The kibbutz norms place a high emphasis on member participation in all aspects of community life. Withdrawal is openly discouraged. Subgroup solidarities of any kind (even husband-wife relationships) draw disapproval.

Life centered around the communal dining hall, itself in the center of the hill on which the kibbutz sat. Nearby were the library and the children's houses. Married members lived in two-room apartments some distance from the dining hall. Single persons, only if they were founders or long-time members, also had one-room apartments. Newer members, visitors on probation, in short those who needed to be bound into communal life, lived in less desirable dormitory rooms close to the dining hall.

Residents still managed to gain social distance from time to time. One strategy seemed to be to request a job wherein there was little contact with others. Some jobs contained a good deal of distance, particularly work wherein there was little or no continuing contact with others (i.e., latrine duty, the orchard or chicken house, sheepherding, or night guard duty). In other labor where individuals worked closely with fellow workers and also dealt with fellow residents as clients, there was little distance (i.e., the sewing room, laundry, and kitchen). These were also critical to the daily functioning of the kibbutz, a fact which added tension.

Within the communal, cooperative framework it was assumed that all would share work responsibilities and that at some time all would be assigned to every type of job. In practice the work committee tried to achieve this ideal distribution at the same time it attempted to consider individual requests. Out of the balance of the individual resident's collective orientation and the collective's concern for the individual there emerged the possibility that work with distance could be obtained, or conversely, for those who

disliked solitary work, jobs with little distance could be sought.

Residents' statuses and roles were also at play in some of the committee's work assignments. These considerations took the form of respect for the preferred statuses and also a kind of reverse status acknowledgement. For example, male residents could request and receive assignments to the isolated work of the fish ponds, cotton fields and orchards, these being difficult, heavy jobs. Women could and did this work also, but a man's request for one of these jobs would be more apt to be honored than that of a woman. Reverse status deference enabled persons in less honored positions to negotiate distance by manipulating these higher statuses or preferred role attributes. Probationers for membership who wanted to make good by demonstrating their interests and aptitude for kibbutz life and hard work would request assignment to night work or overtime jobs in order to relieve members for important committee work.

Within the performance of any job there also existed possibilities to gain distance. Some people exceeded the norms for the amount and type of work usually required for a particular job, such as working overtime in an isolated work locale, which meant additional time away from others. Others picked less attractive tasks within given kinds of work, for example, peeling onions a good distance from the rest of the kitchen crew or taking a ladder to an isolated and difficult tree in the orchard.

Yet others took advantage of their own role attributes. Parents could legitimately take a few moments from work to stop by the children's house to visit with their youngsters, since children did not live with their parents. Some persons also manipulated the weekly social cycle, preferring to take over on essential jobs on Shabbot and then to enjoy a day off during the rest of the work week when everyone would be busy.

Also of considerable value in gaining distance was individual mobilization of the expressive possibilities in any work role, for a certain amount of negative emotional expression as a distance device, both socially and spatially, was best demonstrated by the new cook who quickly became known for her prickly temper and stormy moods. All understood that they should keep hands-off. She would then be left alone to sulk, gaining respite from others in her tense job.

The ways in which people gained distance during nonwork hours in general paralleled the strategies of the working day, for the communal value system, status arrangements, and interaction all provided paths for distance-inducing strategies. Some residents stretched the possibilities within the daily and weekly work cycle: they took evening meal earlier or later than the majority, walked or hiked alone, showered when the communal showers were not busy. Everyone could ask for a day off to visit a nearby city, but this was apparently more useful for nonmembers than for members who shouldered the main responsibility for an on-going stable work force.

The kibbutz norms surrounding the use of the afternoon rest period were that at this time the kibbutz was quiet, a contrast to the noisy comings and goings afterward. There was no visiting during these two hours; arrangements for calling were understood, if not specified, to be set for after the rest period was over. The activities of the nonworking hours also provided chances for distance: "I have a committee meeting" was a well-used and honored excuse among members who had to use it carefully, for the farm

was too small to permit false excuses. There had to be a real date in the offing, but the time and place could be left conveniently ambiguous. Volunteer work, such as sorting the record collection or artifacts in the museum, was good for distance, as listening to the kibbutz radio system, practicing a musical instrument, and writing a book.

It was possible for residents to gain distance through modes of interaction: during the evening certain individuals did not speak to others at the table; English speaking residents would lapse into that tongue in the presence of those who could converse only in Hebrew; founders could chatter about the "good old days." A highly viable strategy that played on the strong value of parenthood was that of visiting or being with one's children. Similarly, couples who were courting were left to their own during nonwork hours, since it was assumed that they were in the process of taking the step to marriage. Married couples took the evening meal together, so often one would save a space at the table for the partner who might be late, a space earning device accepted by others, but not always comfortable for others. There were few, if any cases of faking sickness. Men and women continued to do heavy manual labor in spite of diagnosed physical ailments that usually demand rest and quiet.

These rough notes and observations have described ways utilized by residents of one kibbutz to gain social and personal distance from their fellows both at work and away from their labors. Apparently the high rate of resignations in an earlier day was not a little associated with the failure of distance-inducing adjustments for some people. (This also suggests that those who stayed on could manage with less distance.) These modes sufficed because they were essentially nondisruptive either for the individual or the enterprise.

The question of why these modes were nondisruptive takes us away from the specific case of the kibbutz and into consideration of other work settings where social distance is also a problem. Two attributes of the kibbutz residents' maneuvers explain why the modes were nondisruptive and point to similar aspects of other settings. These maneuvers represented enough of the collectively accepted values to make them usable both in the work role and during nonwork times. One sees a parallel here in the world of high culture, where artistic endeavor is a prime value and where an artist can rely on invocation of this value with colleagues, family and the public to seek distance in the name of art. What the kibbutz illustrates for the general problem of work and spatial distance in other work settings is the blending of central values to effect small bits of physical and social space. Thus is life made bearable in the ongoing contact with others and workable for the enterprise. Not all distance from others need be extensive or protracted. Obtaining small bits here and there may be more efficacious for the individual and the enterprise.

## Mental Health and the Law

# Due Process: A Swing toward Student Rights

KENNETH W. GORDON

Taking some 70 or more years to do so, institutions of higher learning are now seeing the pendulum of due process swing in the area of student citizenship rights. Until recently, a student has been going to college without the rights of a first-class citizen. The Fifth Amendment reads in part that "no person shall be deprived of life, liberty, or property, without due process of law." With the passage of the Fourteenth Amendment the restrictions of the first ten were made applicable to the States.

Second-class citizenship rights of students were placed firmly in the history of higher education by *Gott v. Berea College* (1913). The Kentucky court set an important precedent by stating that "college authorities stand *in loco parentis* concerning the physical and moral welfare and mental training of the pupils, and we are unable to see why to that end they may not make any rules or regulations for the betterment of their pupils that a parent could for the same purpose." The court ruled that disciplinary regulations must not be unlawful or against public policy, but stated that "whether the rules or regulations are wise, or their aims worthy, is a matter left solely to the discretion of the authorities or parents."

Perhaps the most common partner of the *in loco parentis* dictum is the contract theory. These two ideas, more than any others, have been used as justification of student discipline for breach of rules and regulation without a hearing or other forms of due process. Many institutions today still require students to sign a written statement, such as: "I agree to comply with the regulations and requirements of the institution and uphold the standards of conduct set down by the college."

One of the earliest cases, *Goldstein v. New York University* (1902), stated: "The contract between the student and the university contains an implied condition that the student will not be guilty of such misconduct as will be subversive of the discipline of the university, or as will show him to be morally unfit to be continued as a member thereof." The courts seemed reluctant to question the powers of the institutions. The burden of proof of innocence seemed to fall upon the student's shoulders in a contest of disciplinary action. These decisions lent strong support to the view that students were not first-class citizens.

A 1943 Tennessee court stated that the student should be informed of the nature of the charges, as well as the names of at least the principal witnesses against him, when requested; should be given a fair opportunity to make his defense; and should not be compelled to incriminate himself, but could not claim the privilege of cross-examination as a matter of right. But the judge ruled that when the student is guilty of improper conduct sufficient to justify his expulsion, it is not necessary to go through the formality of a hearing. This, at least in some instances, did give the student the right of some semblance of due process.

Because of the influence of such writers as Warren Seavey and Clarence J. Bakken, who were among the first to demand fair discipline proce-

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dures for the students, the Federal courts seemed to have signaled a halt to the trend of second-class citizenship rights of students. Older cases had tended to hold that an informal interview and an opportunity to explain or deny the conduct charged was sufficient, and until about 1960 the trend was toward requiring less and less formality. Even though many states were giving more power to their state schools, more cases were being carried to higher courts for final action. With this trend came a much freer swing of the pendulum toward first-class citizenship for students.

In 1965 one writer claimed that the end and purpose of a college's *in loco parentis* authority could not be precisely those of parenthood, because: Colleges provide services that parents cannot provide; the college undertakes to finalize training; parents do not necessarily approve of, or even know of, all aims of the college; and sending a child to college is generally done knowing that the child assumes new responsibilities for his own welfare.

Two cases in the early 1960's, which went to the Federal courts before settlement, set precedent in the rights of students:

The *Dixon v. Alabama State Board of Education* (1961) case dealt with a number of students who had been expelled after a civil rights demonstration. The president of the college suspended the students without bringing formal charges against them or granting them a hearing. The presiding judge of the Federal Court of Appeals reversed the lower court's decision stating that the accused students should receive notice of the charges, have an opportunity to be heard in their own defense, and at least have access to the names of the adverse witnesses.

*Knight v. State Board of Education et al.* (1961) helped halt the lack of due process in disciplinary hearings. Several Negro students at Tennessee A&I participated in a "freedom ride" and were arrested and charged with disorderly conduct by a Mississippi court. While still in jail, each student received a letter from Tennessee A&I stating that he would be suspended until proven innocent of the charges. The students sued for lack of due process in civil rights and won their case in Federal District Court.

The Federal court went on to outline what it felt was due process: that the student has a right to a fair hearing; that he has a right to the notices of charges being leveled against him; that there should be a hearing of the evidence relevant to the case; that he should have the right of representation by counsel; and that there should be some kind of appellate procedure (*Dixon v. Alabama,* 1961).

Although most courts, since the early due process cases in the 1960's, agree that some kind of disciplinary hearing is needed, they seem to emphasize that the concept of fair play in due process should be the prevailing trend, not a set of definite guidelines to be followed in all cases, such as must be in courts of law. Recent court cases point out that the university's due process procedures need not be the same as in criminal law. They do, however, stress the necessity of fair play through some type of due process. In each of the cases the college or the lower court was ordered either to reinstate the suspended students or give them another hearing based on the lack of fair play or due process in their suspension.

By the mid-1960's the push for student rights and due process in disciplinary procedures moved from isolated individual concern to mass student concern. U.S. District Court Judge of

Wisconsin, Judge James E. Doyle, was quoted as saying that, "judicial precedent supported broad authority of university officials over students, but that today's trend was to subject this authority to constitutional scrutiny." In 1969 Judge Doyle ruled on the reinstatement of three students at the University of Wisconsin. The students were suspended by the Board of Regents for "violent conduct and destruction of university property." This action was taken without the students' knowledge and without a preliminary hearing, even though "within a day or two thereafter, each of the plaintiffs was notified of his immediate suspension, and each of them was furnished with a specification of charges and a notice of a previous hearing."

A well-known Louisiana lawyer, Thomas H. Matheny, made some interesting predictions about the future citizenship rights of students. He felt that the rule of thumb of the courts in the future would be to consider the student simply as a citizen with all the rights and privileges of a citizen. He felt that this would make the student the last to gain full citizenship in this changing trend of the law. A student's actions and behavior will be considered in that light; and if those actions do not interfere with the rights of others, they will not be interfered with by the university's administrators.

Two important reasons for this trend can be summarized from the court cases and sociological changes in this country. First, there is a shift taking place in the law. Since the late 1920's and early 1930's the trend running through nearly all phases of law has been to uphold the rights of the individual over the rights of society, the idea being that the government of our country has developed sufficiently for society as a whole to be amply protected and that now it is time to protect the rights of the individual. Second, there is a great change taking place in the student society. The student of today is more serious, more intellectually involved, more rebellious than committed, is more self-conscious, and even more self-centered than the student of yesterday. He has a greater understanding of human suffering and a greater need for that which he does not always understand —freedom.

Keeping these important changes in mind, today's institution of higher education must remember that the future of an individual is in the balance when discipline, especially dismissal or expulsion, is involved. The safest and most just method of insuring the rights of the student as a citizen in any case involving suspension or dismissal is to provide him not only with "fair play" in due process but a "full" hearing. If the academic community, both the institution and the student, respond maturely to the legal and sociological changes of today, both will adjust with dignity and with respect for each other.

# Mental Health News Digests

### National Advisory Mental Health Council

Acting in an advisory capacity to the Department of Health, Education, and Welfare, the National Advisory Mental Health Council is concerned with matters of research, training, and community mental health programs supported by the Health Services and Mental Health Administration. Dr. Bertram S. Brown, Director of the Nationl Institute of Mental Health, recently announced the appointment of three new Council members: Mr. Irving Chase, President of Henry Thayer Company; Dr. Robert J. Glaser, Vice President of the Commonwealth Fund; and Dr. Herbert G. Steger, Jr., Assistant Professor, Department of Physical Medicine and Rehabilitation, University of California. Remaining members of the Council are: Honorable David L. Bazelon, Chief Judge, U.S. Court of Appeals for the D.C. Circuit; Dr. S. Allen Counter, Jr., Director of the Department of Communication Disorders, Massachusetts General Hospital; Mrs. Fletcher Gaylord; Dr. Nicholas Hobbs, Provost, Vanderbilt University; Dr. Bernard C. Holland, Professor and Chairman, Department of Psychiatry, Emory University; Dr. Joshua Lederberg, Professor of Genetics, Stanford University; Dr. Alan D. Miller, Commissioner, State Department of Mental Hygiene, New York; Mr. Charles I. Schottland, President of Brandeis University. Dr. Vernon Wilson, Administrator of HSMHA, is ex-officio chairman. Two ex-officio members are: Dr. Marc J. Musser, Chief Medical Director, Department of Medicine and Surgery, Veterans Administration; and Dr. Louis M. Rousselot, Assistant Secretary for Defense (Health & Environment), Department of Defense.

### New National Institute on Alcohol Abuse and Alcoholism

The National Institute on Alcohol Abuse and Alcoholism has been established within the National Institute of Mental Health. The new Institute was authorized by the "Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act" (Public Law 91-616), passed unanimously by the 91st Congress and signed into law by President Nixon on December 31, 1970. With the establishment of the new Institute, the Federal government has launched a major national effort to combat this serious and widespread public health problem.

Morris E. Chafetz, M.D., is Director of the new Institute; Dr. Chafetz had been Acting Director of the NIMH Division of Alcohol Abuse and Alcoholism. The Institute incorporates the programs of the Division, which it supersedes.

The new Institute will develop and conduct comprehensive programs of research, training, community services, and public education for the prevention and treatment of alcohol abuse and alcoholism. The organization of the Institute includes four divisions: Prevention, State and Community Assistance Programs, Special Treatment and Rehabilitation Programs, and Research. Relevant training programs will be carried out under each Division's activities.

The appointment of eleven members of the National Advisory Council on Alcohol Abuse and Alcoholism was also recently announced. The Advisory Council will make recommendations to the Secretary of HEW on policy relating to Federal alcohol abuse and alcoholism programs and

activities, will exercise final review and approval authority on grant awards in this area, and will collect information on studies being done throughout the world relating to alcohol abuse and alcoholism. Appointees to the Council are Harold W. Demone, Jr., Ph.D., Exectuve Director of United Community Services of Metropolitan Boston; G. Carlton Edmonds, Director and Vice President of the Alcoholism Research Council, Chapel Hill, N.C.; Dale H. Farabee, M.D., Commissioner of the Kentucky Department of Mental Health; George T. Hermann, III, Chairman of the Board of George T. Herrmann and Company, a national insurance brokerage firm; Peter B. Hutt, Esq., of the legal firm of Covington and Burling, Washington, D.C.; Quinton C. James, M.D., Regional Chief of the South Central Mental Health Service of the Los Angeles County Department of Mental Health; James S. Kemper, Jr., President of Lumbermens Mutual Casualty Company of Chicago and many other insurance firms; Mrs. Marty Mann, founder and former Executive Director of the National Council on Alcoholism; Thomas P. Pike, Vice Chairman of the Board and Director of the Fluor Corporation of Los Angeles, and recent chairman of the National Advisory Committee on Alcoholism; Herbert A. Raskin, M.D., a practicing psychiatrist in Southfield, Michigan, and chairman of the American Medical Association Committee on Alcoholism and Drug Dependence; and Marsha Vannicelli, Ph.D., a postdoctoral clinical psychology intern from Cambridge, Mass., who has specialized in the area of alcoholism.

**The Association for the Study of Man-Environment Relations**

The Association for the Study of Man-Environment Relations (ASMER) was formally incorporated in New York State as a nonprofit membership organization in 1969. ASMER's goal is to promote understanding and the exchange of ideas concerning man and his environment between people in the behavioral sciences, the design professions, and in other scientific and technological fields.

To date the Association has sponsored meetings and symposia on environmental design and related topics, and it publishes *Man-Environment Systems*. ASMER plans in the future to support research in man-environment relations and to assist those concerned with environmental problems.

The President of the Association is Dr. Aristide H. Esser, a psychiatrist. ASMER membership is open to qualified individuals for an annual fee of $12.00. Inquiries should be directed to Mrs. Harriet Goldstein, P.O. Box 57, Orangeburg, New York 10962.

**Alcoholism Among Male Inpatients**

According to a recent statistical report, released by the Biometry Branch of the NIMH, 26 percent of all male admissions to psychiatric inpatient services in 1968 received a primary diagnosis of alcoholism. Three to five percent of the women received the same diagnosis.

For 1968 there were 140,000 total male admissions diagnosed for alcohol addiction or brain syndromes associated with alcohol intoxification. Forty-two percent of these men were admitted into State mental hospitals. General hospitals only accounted for 28 percent of the male alcoholism admissions. Among male admissions to State and county mental hospitals in the 45–64 year age group, alcoholism constituted almost 50 percent of all

admissions. A copy of this *Statistical Note 31* may be obtained from the Office of Communications, NIMH, Publications Issuance Unit, Room 1B64, Parklawn Building, 5600 Fishers Lane, Rockville, Md. 20852.

**Current Research Summaries**

The American Psychological Association Communications Program has developed a Current Research Summaries system (CRS) that is designed to provide a communication bridge between the time of completing research and the formal publication of the findings. The system will be able to provide followup research information for a larger group of psychologists, without jeopardizing the publication prerogatives of the author.

The CRS receives information concerning possible followup research from the authors when the original article is accepted for publication. This information is given voluntarily. If the questionnaire is completed, it will be indicated in the publishing journal that such information is on file in the Office of Communications and available to readers. Three journals are currently participating in the system: the *Journal of Educational Psychology,* the *Journal of Counseling Psychology,* and the *Journal of Experimental Psychology.* Address all requests to: Current Research Summaries, American Psychological Association, 1200 Seventeenth Street, N.W., Washington, D.C. 20036.

**New Drug Journal**

The *Journal of Drug Education* is a new quarterly publication designed to discuss all aspects of the drug abuse problem. The major topical areas include: the role of the educator in drug education; innovations in drug education; school and community drug education programs; drug research information; and drug education as applied to business and industry, law enforcement agencies, the clergy, the military, and all other areas sensitive to the misuse of drugs. The journal is published by Baywood Publishing Company, Inc., 1 Northwest Drive, Farmingdale, New York 11735.

**75th Anniversary of N. Y. State Psychiatric Institute**

The New York State Psychiatric Institute is celebrating its 75th Anniversary November 21–23, 1971. During that time the Institute will present a symposium to mark 75 years of progress in psychiatric research and education. The New York State Psychiatric Institute is one of the Nation's leading and oldest centers of its kind.

The present schedule includes a reception given by Dr. Lawrence C. Kolb, Director of the Institute, and a series of clinical and research conferences covering many different perspectives of psychiatry and mental health. A lecture on the future of psychiatry is scheduled to be given by Dr. Ewald Busse, President of the American Psychiatric Association. For further information write to The New York State Psychiatric Institute, 722 West 168th Street, New York City, N.Y. 10032.

# recent nimh publications

Single copies of these publications may be obtained from the Office of Communications, National Institute of Mental Health (Publications Issuance Unit, Room 1B64, Parklawn Building, 5600 Fishers Lane, Rockville, Md. 20852). A complete list of all publications available from the NIMH may also be obtained from the Office of Communications. If a price is given, the publication may be ordered in quantity from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Enclose a check or money order payable to the Superintendent of Documents.

**"How Was The Trip?" A Play Concerned with Drug Abuse.** This play was written by Elizabeth Blake for PLAYS for LIVING, a Division of the Family Service Association of America, under contract to the Office of Communications and the Division of Narcotic Addiction and Drug Abuse of NIMH. The drama centers around each member of a family and how a breakdown in family communications may result in its members seeking solace through chemical or artificial stimulants. The play may be used as a valuable tool in stimulating discussions concerning drug abuse. Public Health Service Publication No. 2148. 30¢.

**Television and Social Behavior, An Annotated Bibliography of Research Focusing on Television's Impact on Children.** Edited by Charles K. Atkin, John P. Murray, and Oguz B. Nuyman, this bibliography is the by-product of a research program on television and social behavior initiated in 1969 under the guidance of the Surgeon General's Scientific Advisory Committee on Television and Social Behavior. The 285 annotated items are divided into three sections: "Television Content and Programming", "Audience Viewing Patterns and General Effects of Television", and "The Impact of Television and Other Visual Media on Children and Youth"; an additional reading list of 211 citations also is included. Public Health Service Publication No. 2099.

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